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Spanish Assessment Data Base of Megrin and Four Spotted Megrin in Sub-Areas VII-VIII and Divisions VIIIc-IXa

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Two species of Megrin are included in the Spanish landings from ICES Sub-area VII and in Divisions VIIIc and IXa, Megrin, *Lepidorhombus whiffiagonis* and Four Spotted Megrin, *Lepidorhombus boscii*. Harbours as Vigo and La Coruña encloses also Witch, *Glyptocephalus cynoglossus* and Long rough dab *Hippoglossoides platessoides* in landings. All of these species are taken as a by-catch in mixed bottom trawl fisheries with hake, *Nephrops* and monk-fish as target species, with the exception of Vigo fleet operating in Sub-area VII with megrim and four Spotted Megrin as a target species.

Data presented in this document are a summary of some of the Spanish data used in the assessment of Megrin and Four Spotted Megrin from Sub-area VII and Divisions VIIIa, VIIIc and IXa, in the Southern Shelf Demersal Stocks ICES Working Group.

Catches in Sub-area VII- VIII are landed principally in Vigo and La Coruña harbour (Table 1). In Divisions VIIIc-IXa the abundance of landings of megrim are distributed homogeneously by La Coruña, Avilés and Santander harbours, and are very scarce in Division IXa, with only 7 t in the 1993 landings. Four spotted megrim is landed principally in La Coruña (Division VIIIc) and Marín (Division IXa) harbours. Table 1 shows the relative importance of landings by harbour in the different areas.

A number of fish sampled by ICES Division and quarter are presented in Table 2 to 4. As both species are not distinguished in the landings, and their abundance changes along the sampled areas, in some of the harbours one species is better represented in the samples than the other. Therefore, only 64 megrims were found in the total 5 782 fish sampled in 1993 in Division IXa, so, to increase this number till 1 000 megrims, should be necessary to sample 89 300 fish. The same happened in 1993 in La Coruña harbour Division VIIIc, where from a total 6 056 fish sampled 5 053 were four spotted megrims and only 1003 were megrims. To increase this number till 3 000 megrims, should be necessary to sample 18 000 fish.

Length composition of megrim and four spotted megrim of Division VIIIc from La Coruña and Avilés are used to tuning VPA. The distributions show different shapes along the period in the different harbours: in megrim the smaller size landed in La Coruña harbour has increased from 14 cm., in 1996, to achieve 21 cm. in 1993; nevertheless, the small size landed in Avilés harbour has decrease in the same period from 14 to 11 cm. The same happened with four spotted megrim which increased from 13 cm., in 1996, to achieve 19 cm. in 1993 in La Coruña harbour, and in Avilés decreased in the same period from 14 to 11 cm. (Table 5 to 8). So the CPUE series used in VPA with these fleets produced conflicting results.

Other used data in the tuning were those of the Spanish surveys. Length distributions of the Spanish survey during the period 1983-1993 for both species are presented in Table 9 and 10.

Table 11 shows the abundance indices from Spanish surveys since 1993. For megrim, values

remained low till 1986. The highest values were observed during the period 1988 to 1990, decreasing again to the same levels of the first period. Nevertheless, four spotted megrim indices, remained low till 1986, increasing in 1988 and remained higher than the first period till now. Indices of both species show that four spotted megrim have been more abundant than megrim in the last three years.

One of the common methods, used for ageing validation studies, is to follow a year class through several years (Beamish and McFarlane, 1987; Casselman, 1987). As can be seen in data of age abundance indices from Spanish surveys, obtained for both species, it is possible to follow the weak year class of 1990 through several years, Table 12.

A serie of Age Length Key from surveys and total year for both species for Sub-Area VII and Divisions VIIIc and IXa are present in Tables 13 and 14. Mean length at age from different areas, years, quarters, sexes, and species are show in Table 15 and 16.

References

- Beamish, R. J., and McFarlane, G. A. (1987).
Current trends in age determination methodology. In "The Age and Growth of Fish". (Eds R. C. Summerfelt and G. E. Hall.) pp. 15-41. (Iowa State Univresity Press: Ames.).
- Casselman, J. M. (1987).
Determination of age and growth. In "The Biology of Fish Growth". (Eds A. H. Weatherley and H. S. Gill. Academic Press: New York).

.. whiffiagonis Sub-area VII-VIII

| | Vigo | La Coruña | Cant VII | Cant VIIIab |
|------|------|-----------|----------|-------------|
| 1984 | 64 | 16 | 12 | 9 |
| 1985 | 80 | 12 | 5 | 4 |
| 1986 | 70 | 17 | 7 | 7 |
| 1987 | 72 | 8 | 12 | 7 |
| 1988 | 74 | 10 | 12 | 4 |
| 1989 | 72 | 10 | 10 | 8 |
| 1990 | 80 | 8 | 3 | 9 |
| 1991 | 80 | 6 | 7 | 7 |
| 1992 | 82 | 4 | 11 | 3 |
| 1993 | 76 | 4 | 11 | 4 |

.. whiffiagonisi Division VIIIc-IXa

| | La Coruña | Aviles | Santander | Marín |
|------|-----------|--------|-----------|-------|
| 1986 | 24 | 21 | 17 | 12 |
| 1987 | 31 | 20 | 10 | 6 |
| 1988 | 32 | 22 | 13 | 5 |
| 1989 | 24 | 20 | 17 | 5 |
| 1990 | 28 | 27 | 12 | 2 |
| 1991 | 34 | 17 | 16 | 1 |
| 1992 | 49 | 11 | 18 | 0 |
| 1993 | 32 | 17 | 28 | 2 |

L. boscii Division VIIIc-IXa

| | La Coruña | Aviles | Santander | Marín |
|------|-----------|--------|-----------|-------|
| 1986 | 61 | 4 | 1 | 12 |
| 1987 | 48 | 4 | 4 | 24 |
| 1988 | 32 | 5 | 2 | 37 |
| 1989 | 23 | 3 | 1 | 47 |
| 1990 | 36 | 7 | 1 | 34 |
| 1991 | 43 | 5 | 2 | 30 |
| 1992 | 28 | 3 | 1 | 32 |
| 1993 | 44 | 4 | 3 | 20 |

able 1. Percentage of landings by harbour

L. whiffiagonis Subarea-VII

| Vigo | | | | | |
|------|------|------|------|------|-------|
| | 1 | 2 | 3 | 4 | Tot |
| 1982 | | 2818 | 2300 | 3346 | 8464 |
| 1983 | 3583 | 2831 | 2671 | 3245 | 12330 |
| 1984 | 2667 | 2489 | 2556 | 2809 | 10521 |
| 1985 | 3620 | 2783 | 2786 | 2488 | 11677 |
| 1986 | 2369 | 2249 | 2414 | 2491 | 9523 |
| 1987 | 1834 | 2393 | 2088 | 1875 | 8190 |
| 1988 | 2039 | 2255 | 1898 | 1887 | 8079 |
| 1989 | 1915 | 1517 | 1346 | 2358 | 7136 |
| 1990 | 2463 | 2957 | 2302 | 2936 | 10658 |
| 1991 | 3389 | 2679 | 2379 | 2335 | 10782 |
| 1992 | 2647 | 2886 | 2329 | 1610 | 9472 |
| 1993 | 2670 | 2674 | 2514 | 1833 | 9691 |

| La Coruña | | | | | |
|-----------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | Tot |
| | 0 | 1183 | 1499 | 760 | 3442 |
| | 1600 | 1383 | 1493 | 1075 | 5551 |
| | 1460 | 1051 | 236 | 0 | 2747 |
| | 0 | 0 | 1353 | 1468 | 2821 |
| | 1812 | 1297 | 1062 | 1049 | 5220 |
| | 898 | 517 | 630 | 445 | 2490 |
| | 636 | 1043 | 908 | 1070 | 3657 |
| | 1586 | 2025 | 1606 | 961 | 6178 |
| | 1604 | 1274 | 992 | 905 | 4775 |
| | 766 | 1003 | 455 | 731 | 2955 |
| | 720 | 819 | 727 | 587 | 2853 |
| | 1353 | 1303 | 617 | 1028 | 4301 |

| Cantábrico | | | | | |
|------------|-----|-----|-----|-----|------|
| | 1 | 2 | 3 | 4 | Tot |
| | | | | | |
| | | | | | |
| | | | | | |
| | 256 | 57 | 166 | 134 | 613 |
| | 216 | 175 | 130 | 123 | 644 |
| | 541 | 422 | 797 | 395 | 2155 |
| | 971 | 902 | 770 | 690 | 3333 |
| | 639 | 825 | 547 | 229 | 2240 |
| | 511 | 423 | 746 | 111 | 1791 |
| | 99 | 575 | 246 | 103 | 1023 |
| | 310 | 783 | 381 | 0 | 1474 |

| TOTAL | | | | | |
|-------|------|------|------|------|-------|
| | 1 | 2 | 3 | 4 | Tot |
| | 0 | 4001 | 3799 | 4106 | 11906 |
| | 5183 | 4214 | 4164 | 4320 | 17881 |
| | 4127 | 3540 | 2792 | 2809 | 13268 |
| | 3620 | 2783 | 4139 | 3956 | 14498 |
| | 4437 | 3603 | 3642 | 3674 | 15356 |
| | 2948 | 3085 | 2848 | 2443 | 11324 |
| | 3216 | 3720 | 3603 | 3352 | 13891 |
| | 4472 | 4444 | 3722 | 4009 | 16647 |
| | 4706 | 5056 | 3841 | 4070 | 17673 |
| | 4666 | 4105 | 3580 | 3177 | 15528 |
| | 3466 | 4280 | 3302 | 2300 | 13348 |
| | 4333 | 4760 | 3512 | 2861 | 15466 |

L. whiffiagonis Division-VIIIab

| Cantábrico | | | | | |
|------------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | Tot |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |
| | 1296 | 1009 | 833 | 1382 | 4520 |
| | 497 | 885 | 668 | 1671 | 3721 |
| | 726 | 826 | 675 | 1620 | 3847 |
| | 2066 | 1501 | 2169 | 1777 | 7513 |
| | 1345 | 608 | 734 | 590 | 3277 |
| | 1913 | 1374 | 1251 | 1420 | 5958 |
| | 1287 | 1279 | 1149 | 680 | 4395 |
| | 962 | 1204 | 2018 | 1473 | 5657 |

L. boscii Subarea-VII

| Vigo | | | | | |
|------|-----|-----|-----|------|------|
| | 1 | 2 | 3 | 4 | Tot |
| 1982 | | 70 | 175 | 411 | 656 |
| 1983 | 171 | 506 | 49 | 343 | 1069 |
| 1984 | 203 | 193 | 85 | 398 | 879 |
| 1985 | 184 | 58 | 163 | 154 | 559 |
| 1986 | 226 | 105 | 98 | 242 | 671 |
| 1987 | 96 | 129 | 66 | 58 | 349 |
| 1988 | 39 | 245 | 87 | 93 | 464 |
| 1989 | 146 | 50 | 211 | 323 | 730 |
| 1990 | 342 | 90 | 521 | 70 | 1023 |
| 1991 | 149 | 80 | 92 | 206 | 527 |
| 1992 | 409 | 123 | 145 | 360 | 1037 |
| 1993 | 133 | 224 | 322 | 1605 | 2284 |

| La Coruña | | | | | |
|-----------|------|-----|------|-----|------|
| | 1 | 2 | 3 | 4 | Tot |
| | 0 | 431 | 988 | 562 | 1981 |
| | 329 | 416 | 849 | 974 | 2568 |
| | 1123 | 539 | 100 | 0 | 1762 |
| | 0 | 0 | 988 | 967 | 1955 |
| | 429 | 193 | 607 | 680 | 1909 |
| | 204 | 362 | 560 | 441 | 1567 |
| | 425 | 235 | 166 | 594 | 1420 |
| | 145 | 569 | 895 | 652 | 2261 |
| | 317 | 963 | 828 | 846 | 2954 |
| | 746 | 635 | 1125 | 741 | 3247 |
| | 746 | 441 | 899 | 653 | 2739 |
| | 427 | 668 | 995 | 673 | 2763 |

| Cantábrico | | | | | |
|------------|----|----|----|----|-----|
| | 1 | 2 | 3 | 4 | Tot |
| | | | | | |
| | | | | | |
| | | | | | |
| | 1 | 57 | 8 | 1 | 67 |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 8 | 8 |
| | 57 | 1 | 14 | 13 | 85 |
| | 26 | 23 | 22 | 8 | 79 |
| | 8 | 39 | 23 | 6 | 76 |
| | 47 | 51 | 48 | 53 | 199 |
| | 52 | 47 | 47 | 0 | 146 |

| TOTAL | | | | | |
|-------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | Tot |
| | 0 | 501 | 1163 | 973 | 2637 |
| | 500 | 922 | 898 | 1317 | 3637 |
| | 1326 | 732 | 185 | 398 | 2641 |
| | 184 | 58 | 1151 | 1121 | 2514 |
| | 656 | 355 | 713 | 923 | 2647 |
| | 300 | 491 | 626 | 499 | 1916 |
| | 464 | 480 | 253 | 695 | 1892 |
| | 348 | 620 | 1120 | 988 | 3076 |
| | 685 | 1076 | 1371 | 924 | 4056 |
| | 903 | 754 | 1240 | 953 | 3850 |
| | 1202 | 615 | 1092 | 1066 | 3975 |
| | 612 | 939 | 1364 | 2278 | 5193 |

L. boscii Division-VIIIab

| Cantábrico | | | | | |
|------------|-----|-----|-----|-----|------|
| | 1 | 2 | 3 | 4 | Tot |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |
| | 114 | 16 | 122 | 114 | 366 |
| | 19 | 23 | 14 | 406 | 462 |
| | 253 | 29 | 44 | 43 | 369 |
| | 46 | 158 | 398 | 431 | 1033 |
| | 248 | 71 | 50 | 100 | 469 |
| | 107 | 321 | 106 | 257 | 791 |
| | 188 | 250 | 267 | 361 | 1066 |
| | 291 | 539 | 469 | 339 | 1638 |

Table 2. Number of fish sampled by harbour and year in ICES Sub-areas VII-VIII.

| La Coruña | | | | | |
|-----------|-----|-----|-----|-----|------|
| | 1 | 2 | 3 | 4 | Tot |
| 1982 | 0 | 533 | 293 | 237 | 1063 |
| 1983 | 172 | 541 | 407 | 278 | 1398 |
| 1984 | 721 | 240 | 0 | 0 | 961 |
| 1985 | 0 | 0 | 40 | 65 | 105 |
| 1986 | 45 | 135 | 181 | 186 | 547 |
| 1987 | 145 | 17 | 70 | 63 | 295 |
| 1988 | 93 | 77 | 225 | 298 | 693 |
| 1989 | 206 | 227 | 216 | 118 | 767 |
| 1990 | 100 | 217 | 144 | 475 | 936 |
| 1991 | 341 | 203 | 265 | 159 | 968 |
| 1992 | 508 | 334 | 211 | 394 | 1447 |
| 1993 | 95 | 253 | 179 | 476 | 1003 |

| 1 | 2 | 3 | 4 | Tot |
|------|------|------|------|------|
| 863 | 715 | 1004 | 1021 | 3603 |
| 66 | 0 | 0 | 125 | 191 |
| 903 | 1043 | 1016 | 1227 | 4189 |
| 207 | 2422 | 2839 | 1417 | 6885 |
| 1572 | 2035 | 1111 | 1508 | 6226 |
| 1417 | 1577 | 1944 | 1135 | 6073 |
| 1441 | 1667 | 1619 | 1489 | 6216 |
| 979 | 1731 | 1934 | 1594 | 6238 |

| 1 | 2 | 3 | 4 | Tot |
|------|------|------|------|------|
| 0 | 533 | 293 | 237 | 1063 |
| 172 | 541 | 407 | 278 | 1398 |
| 721 | 240 | 0 | 0 | 961 |
| 0 | 0 | 40 | 65 | 105 |
| 908 | 850 | 1185 | 1207 | 4150 |
| 211 | 17 | 70 | 188 | 486 |
| 996 | 1120 | 1241 | 1525 | 4882 |
| 413 | 2649 | 3055 | 1535 | 7652 |
| 1672 | 2252 | 1255 | 1983 | 7162 |
| 1758 | 1780 | 2209 | 1294 | 7041 |
| 1949 | 2001 | 1830 | 1883 | 7663 |
| 1074 | 1984 | 2113 | 2070 | 7241 |

| La Coruña | | | | | |
|-----------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | Tot |
| 1982 | 0 | 862 | 1198 | 627 | 2687 |
| 1983 | 585 | 1084 | 1081 | 572 | 3322 |
| 1984 | 715 | 389 | 0 | 0 | 1104 |
| 1985 | 0 | 0 | 244 | 271 | 515 |
| 1986 | 638 | 591 | 621 | 833 | 2683 |
| 1987 | 711 | 540 | 322 | 164 | 1737 |
| 1988 | 471 | 310 | 173 | 638 | 1592 |
| 1989 | 872 | 909 | 1173 | 855 | 3809 |
| 1990 | 1079 | 1114 | 1183 | 1039 | 4415 |
| 1991 | 1109 | 911 | 904 | 878 | 3802 |
| 1992 | 865 | 1030 | 818 | 827 | 3540 |
| 1993 | 1643 | 1362 | 1018 | 1030 | 5053 |

| 1 | 2 | 3 | 4 | Tot |
|-----|------|------|------|------|
| 168 | 1132 | 586 | 1021 | 2907 |
| 35 | 0 | 0 | 155 | 190 |
| 617 | 512 | 752 | 625 | 2506 |
| 167 | 855 | 1675 | 1042 | 3739 |
| 593 | 741 | 1027 | 918 | 3279 |
| 571 | 636 | 1396 | 1161 | 3764 |
| 554 | 791 | 1131 | 915 | 3391 |
| 527 | 847 | 928 | 633 | 2935 |

| | 1 | 2 | 3 | 4 | Tot |
|------|------|------|------|-------------|-----|
| 0 | 862 | 1198 | 627 | 2687 | |
| 585 | 1084 | 1081 | 572 | 3322 | |
| 715 | 389 | 0 | 0 | 1104 | |
| 0 | 0 | 244 | 271 | 515 | |
| 806 | 1723 | 1207 | 1854 | 5590 | |
| 746 | 540 | 322 | 319 | 1927 | |
| 1088 | 822 | 925 | 1263 | 4098 | |
| 1039 | 1764 | 2848 | 1897 | 7548 | |
| 1672 | 1855 | 2210 | 1957 | 7694 | |
| 1680 | 1547 | 2300 | 2039 | 7566 | |
| 1419 | 1821 | 1949 | 1742 | 6931 | |
| 2170 | 2209 | 1946 | 1663 | 7988 | |

L. whiffiagonis Division IXa

| Marin | | | | | | Riveira | | | | | | Muros | | | | | | TOTAL | | | | | | |
|-------|-----|-----|-----|-----|-----|---------|----|----|----|---|-----|-------|----|----|----|----|-----|-------|-----|-----|-----|-----|-----|------|
| | 1 | 2 | 3 | 4 | Tot | | 1 | 2 | 3 | 4 | Tot | | 1 | 2 | 3 | 4 | Tot | | 1 | 2 | 3 | 4 | Tot | |
| 1983 | | 124 | 196 | 102 | 422 | | | 95 | 24 | | 119 | | | | | 54 | 54 | | 0 | 219 | 220 | 156 | | 595 |
| 1984 | 45 | 338 | 188 | 387 | 958 | | | | | | 0 | | 60 | 65 | 32 | 7 | 164 | | 105 | 403 | 220 | 394 | | 1122 |
| 1985 | | | 35 | 3 | 38 | | | | | | 0 | | 5 | 15 | 8 | 3 | 31 | | 5 | 15 | 43 | 6 | | 69 |
| 1986 | 165 | 55 | 36 | 27 | 283 | | | | | | 0 | | | 5 | 1 | | 6 | | 165 | 60 | 37 | 27 | | 289 |
| 1987 | | | | | 0 | | | | | | 0 | | 7 | 5 | 5 | 11 | 28 | | 7 | 5 | 5 | 11 | | 28 |
| 1988 | 3 | | 44 | 3 | 50 | | | | | | 0 | | 8 | 14 | 30 | 18 | 70 | | 11 | 14 | 74 | 21 | | 120 |
| 1989 | | | 2 | 18 | 20 | | | | | | 0 | | 10 | 9 | 13 | 5 | 37 | | 10 | 9 | 15 | 23 | | 57 |
| 1990 | 31 | | 3 | | 34 | | 34 | 4 | | | 38 | | 4 | 4 | 7 | 3 | 18 | | 69 | 8 | 10 | 3 | | 90 |
| 1991 | | | 5 | 1 | 6 | | | | | | 0 | | 1 | 2 | 2 | 3 | 8 | | 1 | 2 | 7 | 4 | | 14 |
| 1992 | 2 | 3 | | 6 | 11 | | | | | | 0 | | 3 | | 6 | 1 | 10 | | 5 | 3 | 6 | 7 | | 21 |
| 1993 | 5 | 6 | 27 | 11 | 49 | | | | | | 0 | | 3 | 5 | 2 | 5 | 15 | | 8 | 11 | 29 | 16 | | 64 |

L. Boscii Division IXa

| Marin | | | | | | Riveira | | | | | | Muros | | | | | | TOTAL | | | | | |
|-------|-----|-----|------|-----|------|---------|-----|-----|-----|-----|------|-------|-----|-----|-----|-----|------|-------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | Tot | | 1 | 2 | 3 | 4 | Tot | | 1 | 2 | 3 | 4 | Tot | | 1 | 2 | 3 | 4 | Tot |
| 1983 | | 617 | 768 | 488 | 1873 | | | 185 | 105 | | 290 | | | 43 | 122 | 106 | 271 | | 0 | 845 | 995 | 594 | 2434 |
| 1984 | 697 | 814 | 644 | 686 | 2841 | | | | | | 0 | | 203 | 228 | 229 | 172 | 832 | | 900 | 1042 | 873 | 858 | 3673 |
| 1985 | | | 162 | 424 | 586 | | | | | | 0 | | 310 | 447 | 512 | 517 | 1786 | | 310 | 447 | 674 | 941 | 2372 |
| 1986 | 306 | 650 | 1122 | 483 | 2561 | | | | | | 0 | | 466 | 519 | 505 | 148 | 1638 | | 772 | 1169 | 1627 | 631 | 4199 |
| 1987 | | | | 237 | 237 | | | | | | 0 | | 435 | 515 | 524 | 319 | 1793 | | 435 | 515 | 524 | 556 | 2030 |
| 1988 | 721 | 756 | 550 | 590 | 2617 | | | | | | 0 | | 415 | 470 | 489 | 528 | 1902 | | 1136 | 1226 | 1039 | 1118 | 4519 |
| 1989 | 633 | 485 | 337 | 794 | 2249 | | | | | | 0 | | 508 | 533 | 498 | 483 | 2022 | | 1141 | 1018 | 835 | 1277 | 4271 |
| 1990 | 661 | 441 | 575 | 579 | 2256 | | 297 | 531 | 465 | 552 | 1845 | | 499 | 463 | 449 | 365 | 1776 | | 1457 | 1435 | 1489 | 1496 | 5877 |
| 1991 | 835 | 284 | 545 | 729 | 2393 | | 341 | 321 | 472 | 317 | 1451 | | 369 | 453 | 457 | 430 | 1709 | | 1545 | 1058 | 1474 | 1476 | 5553 |
| 1992 | 452 | 488 | 467 | 283 | 1690 | | 491 | 182 | 364 | 227 | 1264 | | 440 | 458 | 431 | 285 | 1614 | | 1383 | 1128 | 1262 | 795 | 4568 |
| 1993 | 677 | 541 | 945 | 911 | 3074 | | 322 | 190 | 255 | 349 | 1116 | | 435 | 440 | 294 | 359 | 1528 | | 1434 | 1171 | 1494 | 1619 | 5718 |

Table 4. Number of fish sampled by harbour and year in ICES Sub-area XIa.

Megrim *L. whiffiagonis*
Division VIIIc, IXa
La Coruña

(N*100)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------------|-------|-------|-------|-------|-------|-------|-------|------|
| 10.5 | | | | | | | | |
| 11.5 | | | | | | | | |
| 12.5 | | | | | | | | |
| 13.5 | | 93 | 43 | | | | | |
| 14.5 | 18 | 47 | 0 | | | | | |
| 15.5 | 57 | 1096 | 0 | | | | | |
| 16.5 | 133 | 1143 | 197 | 11 | 126 | | | |
| 17.5 | 240 | 1816 | 363 | 98 | 230 | 71 | 72 | |
| 18.5 | 416 | 2580 | 709 | 50 | 435 | 383 | 0 | |
| 19.5 | 546 | 4013 | 1111 | 229 | 87 | 108 | 18 | |
| 20.5 | 570 | 978 | 1907 | 506 | 94 | 481 | 88 | |
| 21.5 | 518 | 1803 | 1628 | 233 | 169 | 358 | 44 | 7 |
| 22.5 | 788 | 1410 | 1639 | 508 | 345 | 398 | 117 | 108 |
| 23.5 | 754 | 938 | 2139 | 997 | 586 | 749 | 238 | 307 |
| 24.5 | 673 | 497 | 2565 | 807 | 771 | 564 | 576 | 476 |
| 25.5 | 688 | 478 | 1654 | 804 | 1543 | 934 | 797 | 555 |
| 26.5 | 535 | 259 | 1251 | 970 | 987 | 1182 | 1679 | 987 |
| 27.5 | 633 | 317 | 1465 | 1087 | 1999 | 1486 | 1476 | 966 |
| 28.5 | 516 | 436 | 1258 | 1080 | 1045 | 1424 | 1797 | 1322 |
| 29.5 | 940 | 288 | 603 | 851 | 1129 | 1105 | 1323 | 758 |
| 30.5 | 638 | 433 | 725 | 874 | 1669 | 876 | 1145 | 445 |
| 31.5 | 356 | 148 | 485 | 584 | 645 | 724 | 1011 | 349 |
| 32.5 | 563 | 397 | 613 | 353 | 918 | 511 | 793 | 386 |
| 33.5 | 622 | 87 | 412 | 131 | 728 | 336 | 448 | 158 |
| 34.5 | 281 | 73 | 263 | 76 | 701 | 279 | 351 | 154 |
| 35.5 | 74 | 9 | 256 | 81 | 442 | 165 | 329 | 34 |
| 36.5 | 24 | 41 | 107 | 48 | 109 | 86 | 171 | 33 |
| 37.5 | 64 | 75 | 32 | 84 | 73 | 63 | 149 | 12 |
| 38.5 | 37 | 78 | 18 | 34 | 96 | 75 | 124 | 27 |
| 39.5 | 6 | 80 | 7 | 58 | 25 | 12 | 103 | 15 |
| 40.5 | 42 | 7 | 128 | 15 | 21 | 34 | 54 | 0 |
| 41.5 | 6 | 7 | 0 | 24 | 0 | 17 | 17 | 10 |
| 42.5 | 1 | 3 | 49 | 38 | 16 | 42 | 26 | 11 |
| 43.5 | 2 | 3 | 0 | 7 | 29 | 7 | 103 | 22 |
| 44.5 | 18 | 2 | 3 | 29 | 16 | 7 | 33 | 9 |
| 45.5 | 2 | 2 | | 0 | 26 | 9 | 4 | 11 |
| 46.5 | 3 | 5 | | 7 | 8 | 10 | 26 | 2 |
| 47.5 | 1 | 15 | | 0 | 16 | 0 | 65 | 0 |
| 48.5 | 12 | 2 | | 6 | | 0 | 13 | 2 |
| 49.5 | 5 | 3 | | 13 | | 25 | 31 | 5 |
| 50.5 | 5 | 0 | | | | 0 | | |
| 51.5 | 1 | 9 | | | | 0 | | |
| 52.5 | | | | | | 0 | | |
| 53.5 | | | | | | 0 | | |
| 54.5 | | | | | | 0 | | |
| 55.5 | | | | | | 4 | | |
| Total *100 | 10787 | 19675 | 21632 | 10694 | 15083 | 12525 | 13222 | 7170 |

Table 5. Megrim lenght composition of La Coruña, Division VIIIc,

Megrim *L. whiffiagonis*
Division VIIIc, IXa
Aviles (N*100)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 10.5 | | | | | | | | |
| 11.5 | | | | 15 | 66 | 145 | 439 | 477 |
| 12.5 | | | | 22 | 745 | 538 | 707 | 334 |
| 13.5 | | | 441 | 198 | 2541 | 823 | 785 | 575 |
| 14.5 | 606 | | 2103 | 398 | 3865 | 700 | 762 | 985 |
| 15.5 | 674 | | 2122 | 688 | 5141 | 921 | 789 | 714 |
| 16.5 | 1020 | 655 | 3243 | 1728 | 4206 | 1469 | 778 | 868 |
| 17.5 | 882 | 774 | 4808 | 2374 | 5270 | 1676 | 565 | 720 |
| 18.5 | 590 | 2104 | 3284 | 2070 | 3653 | 1603 | 317 | 927 |
| 19.5 | 752 | 2299 | 3609 | 2405 | 4668 | 1041 | 415 | 758 |
| 20.5 | 882 | 1266 | 2215 | 2686 | 3330 | 1523 | 477 | 1042 |
| 21.5 | 1298 | 1381 | 2101 | 1024 | 2025 | 1022 | 602 | 828 |
| 22.5 | 1303 | 688 | 1542 | 1069 | 1839 | 976 | 457 | 604 |
| 23.5 | 1227 | 1419 | 753 | 839 | 1168 | 843 | 257 | 576 |
| 24.5 | 1042 | 1232 | 519 | 583 | 850 | 613 | 400 | 244 |
| 25.5 | 860 | 263 | 187 | 668 | 520 | 395 | 191 | 218 |
| 26.5 | 737 | 34 | 281 | 244 | 358 | 278 | 225 | 130 |
| 27.5 | 227 | 47 | 282 | 249 | 377 | 301 | 125 | 83 |
| 28.5 | 382 | 0 | 145 | 163 | 320 | 114 | 57 | 57 |
| 29.5 | 66 | 191 | 144 | 137 | 304 | 95 | 103 | 68 |
| 30.5 | 51 | 34 | 92 | 171 | 273 | 154 | 105 | 91 |
| 31.5 | 231 | 17 | 58 | 153 | 160 | 90 | 67 | 49 |
| 32.5 | 26 | 34 | 63 | 99 | 163 | 80 | 48 | 32 |
| 33.5 | 50 | 47 | 89 | 102 | 123 | 62 | 30 | 9 |
| 34.5 | 62 | 17 | 85 | 35 | 112 | 20 | 14 | 13 |
| 35.5 | 36 | 47 | 79 | 38 | 37 | 16 | 10 | 24 |
| 36.5 | 32 | 17 | 60 | 9 | 54 | 36 | 16 | 11 |
| 37.5 | 26 | 17 | 79 | 22 | 10 | 0 | 7 | 12 |
| 38.5 | 16 | 0 | 49 | 0 | 64 | 23 | 1 | 9 |
| 39.5 | 26 | 0 | 0 | 33 | 30 | 38 | 6 | 28 |
| 40.5 | 26 | 34 | 15 | 1 | 36 | 0 | 4 | 9 |
| 41.5 | 16 | 1 | 3 | 31 | 28 | 0 | 6 | 15 |
| 42.5 | 0 | 0 | 9 | 2 | 4 | 1 | 2 | 6 |
| 43.5 | 16 | | 15 | 28 | 5 | 1 | 2 | 12 |
| 44.5 | 96 | | 7 | 5 | 0 | 1 | 0 | 8 |
| 45.5 | 32 | | 0 | 4 | 0 | 10 | 1 | 9 |
| 46.5 | 32 | | 7 | 1 | 5 | 0 | 1 | 0 |
| 47.5 | 48 | | 7 | 4 | 0 | | 0 | 0 |
| 48.5 | 5 | | 0 | 1 | 5 | | 0 | 9 |
| 49.5 | 0 | | 7 | 0 | 13 | | 1 | 4 |
| 50.5 | | | 9 | 1 | 0 | | | |
| 51.5 | | | 7 | 3 | 58 | | | |
| 52.5 | | | 0 | 9 | 9 | | | |
| 53.5 | | | | 0 | 0 | | | |
| 55.5 | | | | | | | | |
| Total | 15362 | 14604 | 30508 | 20302 | 44423 | 17602 | 10766 | 12554 |

Table 6. Megrim lenght composition of Aviles, Division VIIIc,

Four Spot Megrim *L. boschii*
Division VIIIc, IXa
La Coruña (N*1000)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------|------|-------|------|------|------|------|------|------|
| 10.5 | | | | | | | | |
| 11.5 | | | 2 | | | | | |
| 12.5 | | 7 | 1 | | | | | |
| 13.5 | 23 | 99 | 0 | | | | | |
| 14.5 | 88 | 346 | 26 | | | | | |
| 15.5 | 356 | 1628 | 87 | | | | 2 | |
| 16.5 | 366 | 1449 | 199 | 110 | 21 | 30 | 0 | 1 |
| 17.5 | 503 | 1636 | 414 | 137 | 60 | 41 | 2 | 0 |
| 18.5 | 637 | 1469 | 682 | 186 | 174 | 158 | 0 | 0 |
| 19.5 | 796 | 1634 | 682 | 234 | 135 | 108 | 6 | 2 |
| 20.5 | 1082 | 1300 | 728 | 337 | 235 | 72 | 30 | 17 |
| 21.5 | 1068 | 1023 | 782 | 338 | 190 | 180 | 76 | 71 |
| 22.5 | 836 | 685 | 663 | 336 | 293 | 241 | 138 | 193 |
| 23.5 | 714 | 478 | 637 | 444 | 368 | 300 | 303 | 400 |
| 24.5 | 514 | 294 | 485 | 444 | 481 | 431 | 463 | 443 |
| 25.5 | 338 | 240 | 531 | 556 | 575 | 598 | 590 | 562 |
| 26.5 | 218 | 161 | 292 | 392 | 522 | 477 | 499 | 580 |
| 27.5 | 161 | 123 | 252 | 347 | 496 | 556 | 500 | 564 |
| 28.5 | 104 | 114 | 141 | 304 | 472 | 429 | 287 | 416 |
| 29.5 | 101 | 60 | 134 | 177 | 299 | 377 | 209 | 251 |
| 30.5 | 50 | 66 | 87 | 93 | 154 | 210 | 118 | 132 |
| 31.5 | 18 | 15 | 56 | 64 | 87 | 145 | 66 | 72 |
| 32.5 | 15 | 25 | 49 | 42 | 53 | 87 | 38 | 33 |
| 33.5 | 5 | 11 | 24 | 26 | 33 | 24 | 19 | 24 |
| 34.5 | 3 | 2 | 20 | 19 | 11 | 20 | 14 | 1 |
| 35.5 | 6 | 0 | 10 | 10 | 12 | 22 | 6 | 3 |
| 36.5 | 0 | 1 | 1 | 3 | 4 | 12 | 1 | 1 |
| 37.5 | 0 | 0 | 8 | 0 | 5 | 4 | 0 | 0 |
| 38.5 | 0 | 0 | 4 | 0 | 0 | 6 | 0 | |
| 39.5 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | |
| 40.5 | 0 | | 2 | 1 | 0 | 1 | | |
| 41.5 | 1 | | 1 | | | 1 | | |
| 42.5 | | | 1 | | | | | |
| 43.5 | | | | | | | | |
| 44.5 | 0 | | | | | | | |
| 45.5 | | | | | | | | |
| Total *1000 | 8006 | 12866 | 7001 | 4600 | 4681 | 4530 | 3368 | 3768 |

Table 7. Four spots megrim lenght composition of La Coruña, Division VIIIc.

Four Spot Megrin *L. boscii*
Division VIIIc, IXa
Aviles (N*1000)

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------------|------|------|------|------|------|------|------|------|
| 10.5 | | | | | | | 3 | |
| 11.5 | | | | | | 1 | 8 | 1 |
| 12.5 | | | | 2 | 73 | 65 | 46 | 108 |
| 13.5 | | | 24 | 5 | 91 | 89 | 61 | 72 |
| 14.5 | 5 | | 120 | 24 | 226 | 172 | 76 | 84 |
| 15.5 | 20 | | 134 | 58 | 314 | 169 | 74 | 75 |
| 16.5 | 29 | | 222 | 82 | 332 | 181 | 32 | 101 |
| 17.5 | 55 | | 378 | 123 | 466 | 136 | 63 | 104 |
| 18.5 | 81 | 35 | 244 | 182 | 307 | 109 | 68 | 124 |
| 19.5 | 54 | 39 | 213 | 163 | 159 | 77 | 48 | 113 |
| 20.5 | 48 | 45 | 147 | 111 | 207 | 93 | 56 | 65 |
| 21.5 | 36 | 65 | 129 | 97 | 135 | 62 | 46 | 73 |
| 22.5 | 15 | 78 | 74 | 51 | 69 | 56 | 33 | 41 |
| 23.5 | 51 | 73 | 60 | 28 | 92 | 64 | 29 | 48 |
| 24.5 | 33 | 62 | 49 | 33 | 34 | 59 | 19 | 31 |
| 25.5 | 21 | 80 | 14 | 24 | 36 | 27 | 8 | 26 |
| 26.5 | 10 | 39 | 8 | 10 | 24 | 21 | 14 | 13 |
| 27.5 | 14 | 29 | 4 | 22 | 25 | 18 | 8 | 8 |
| 28.5 | 9 | 2 | 6 | 21 | 8 | 9 | 2 | 4 |
| 29.5 | 7 | 1 | 4 | 11 | 8 | 14 | 3 | 5 |
| 30.5 | 2 | 0 | 4 | 5 | 5 | 12 | 2 | 4 |
| 31.5 | 11 | 3 | 5 | 3 | 7 | 4 | 1 | 3 |
| 32.5 | 1 | 1 | 1 | 2 | 3 | 4 | 2 | 1 |
| 33.5 | 0 | | 5 | 5 | 8 | 4 | 2 | 2 |
| 34.5 | 0 | | 4 | 0 | 4 | 3 | 0 | 1 |
| 35.5 | 5 | | 6 | 2 | 3 | 2 | 2 | 0 |
| 36.5 | 1 | | 2 | 1 | 1 | 4 | 1 | 0 |
| 37.5 | | | 0 | 0 | 0 | 1 | | |
| 38.5 | | | | 0 | 1 | 0 | | |
| 39.5 | | | | 0 | 0 | 0 | | |
| 40.5 | | | | 1 | 0 | 0 | | |
| 41.5 | | | | | 0 | 0 | | |
| 42.5 | | | | | 0 | 0 | | |
| 43.5 | | | | | 0 | 0 | | |
| 44.5 | | | | | | 0 | | |
| 45.5 | | | | | | | | |
| Total *1000 | 508 | 552 | 1857 | 1067 | 2639 | 1455 | 709 | 1106 |

Table 8. Four spots megrim lenght composition of Aviles, Division VIIIc.

Spanish surveys
Divisions VIIIc, IXa
Megrim, *L. whiffiagonis*

| cm. | 1983 | 1984 | 1985 | 1986 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------|------|------|------|------|------|------|------|------|------|------|
| 4 | | | | | | | 2 | 2 | | |
| 5 | | 12 | | 15 | 12 | | | 4 | | |
| 6 | 13 | 4 | | 116 | 4 | 9 | | 21 | | |
| 7 | 32 | 18 | | 294 | 18 | 34 | | 65 | 2 | |
| 8 | 71 | 21 | 9 | 841 | 21 | 67 | 2 | 124 | | |
| 9 | 195 | 2 | 9 | 1258 | 2 | 168 | 8 | 73 | 7 | |
| 10 | 171 | 9 | 9 | 1007 | 9 | 85 | 2 | 20 | 8 | |
| 11 | 42 | 33 | 0 | 192 | 33 | 28 | 12 | 2 | 38 | |
| 12 | 16 | 124 | 2 | 18 | 124 | 38 | 10 | 13 | 124 | 10 |
| 13 | 57 | 228 | 10 | 52 | 228 | 17 | 50 | 4 | 420 | 22 |
| 14 | 151 | 603 | 44 | 98 | 603 | 64 | 144 | 4 | 635 | 44 |
| 15 | 269 | 899 | 104 | 322 | 899 | 119 | 334 | 19 | 681 | 122 |
| 16 | 392 | 682 | 125 | 513 | 682 | 223 | 393 | 71 | 548 | 145 |
| 17 | 351 | 490 | 122 | 593 | 490 | 277 | 383 | 101 | 353 | 170 |
| 18 | 285 | 410 | 79 | 441 | 410 | 280 | 324 | 85 | 203 | 308 |
| 19 | 247 | 310 | 100 | 278 | 310 | 357 | 352 | 100 | 103 | 392 |
| 20 | 198 | 312 | 121 | 243 | 312 | 485 | 305 | 111 | 70 | 314 |
| 21 | 107 | 375 | 176 | 169 | 375 | 372 | 300 | 181 | 126 | 329 |
| 22 | 83 | 386 | 108 | 245 | 386 | 372 | 385 | 200 | 110 | 314 |
| 23 | 122 | 317 | 161 | 254 | 317 | 483 | 363 | 192 | 134 | 380 |
| 24 | 131 | 302 | 190 | 213 | 302 | 388 | 381 | 187 | 203 | 274 |
| 25 | 133 | 238 | 162 | 195 | 238 | 263 | 490 | 150 | 129 | 240 |
| 26 | 126 | 227 | 147 | 127 | 227 | 223 | 467 | 160 | 144 | 145 |
| 27 | 83 | 204 | 133 | 133 | 204 | 181 | 469 | 125 | 137 | 145 |
| 28 | 76 | 170 | 98 | 101 | 170 | 159 | 302 | 123 | 84 | 112 |
| 29 | 49 | 95 | 57 | 89 | 95 | 112 | 260 | 80 | 71 | 93 |
| 30 | 25 | 83 | 37 | 93 | 83 | 94 | 226 | 57 | 50 | 44 |
| 31 | 32 | 46 | 30 | 60 | 46 | 50 | 131 | 35 | 64 | 41 |
| 32 | 20 | 41 | 27 | 36 | 41 | 27 | 111 | 75 | 44 | 33 |
| 33 | 28 | 33 | 23 | 45 | 33 | 13 | 74 | 28 | 31 | 13 |
| 34 | 35 | 38 | 5 | 24 | 38 | 15 | 47 | 36 | 36 | 18 |
| 35 | 23 | 34 | 12 | 29 | 34 | 15 | 29 | 17 | 20 | 20 |
| 36 | 15 | 17 | 21 | 16 | 17 | 14 | 15 | 16 | 25 | 8 |
| 37 | 9 | 35 | 4 | 15 | 35 | 8 | 9 | 17 | 12 | 2 |
| 38 | 9 | 17 | 15 | 13 | 17 | 5 | 48 | 14 | 34 | |
| 39 | | 8 | 9 | 3 | 8 | 8 | 35 | 4 | 4 | 5 |
| 40 | | 7 | 11 | 9 | 7 | | 27 | 5 | 14 | |
| 41 | | 3 | 3 | 6 | 3 | 3 | 6 | 2 | 8 | |
| 42 | | 3 | | | 3 | 3 | 34 | | 2 | |
| 43 | | 9 | | | 9 | | 5 | | 2 | |
| 44 | | 3 | | 3 | 3 | 7 | 12 | | 6 | |
| 45 | 2 | 3 | | 5 | 3 | 3 | | | 2 | |
| 46 | 4 | 3 | | | 3 | 3 | 27 | | 2 | |
| 47 | 1 | 5 | | | 5 | 3 | | | 6 | |
| 48 | | 5 | 6 | 3 | 5 | | 7 | | 2 | |
| 49 | | 3 | | | 3 | 3 | | | | |
| 50 | | 10 | | | 10 | | 2 | | | |
| 51 | | | | | | | | | | |
| 52 | | | | | | | | | | |
| 53 | | | | | | | | | | |
| 54 | | | | | | | | | | |
| 55 | | | | | | | | | | |
| 56 | | | | | | | 2 | | | |
| Total | 3603 | 6877 | 2169 | 8167 | 6877 | 5078 | 6585 | 2523 | 4694 | 3743 |
| Hauls | 107 | 94 | 97 | 92 | 94 | 91 | 120 | 107 | 116 | 109 |

Table 9. Megrim lenght composition of saples in Divisions VIIIc, IXa.

Spanish surveys
Divisions VIIIc, IXa
Four Spots Megrim, *L. boscii*

| cm. | 1983 | 1984 | 1985 | 1986 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|-------|------|------|------|------|-------|------|------|------|-------|-------|
| 2 | | | | | | | | | | 7 |
| 3 | | | | 2 | | | | | | 0 |
| 4 | | 2 | | 11 | 2 | 2 | | | | 0 |
| 5 | 1 | 48 | 6 | 102 | 61 | 30 | 17 | 22 | 38 | 15 |
| 6 | 48 | 42 | 2 | 210 | 203 | 272 | 64 | 209 | 101 | 27 |
| 7 | 140 | 164 | 12 | 259 | 172 | 619 | 31 | 298 | 153 | 15 |
| 8 | 54 | 216 | 16 | 150 | 229 | 577 | 39 | 87 | 203 | 12 |
| 9 | 27 | 21 | 9 | 73 | 60 | 122 | 74 | 9 | 235 | 11 |
| 10 | 33 | 33 | 19 | 35 | 133 | 59 | 232 | 16 | 551 | 54 |
| 11 | 51 | 78 | 72 | 100 | 162 | 210 | 567 | 67 | 1463 | 207 |
| 12 | 145 | 232 | 197 | 366 | 555 | 365 | 771 | 141 | 2012 | 438 |
| 13 | 312 | 312 | 465 | 949 | 743 | 528 | 989 | 467 | 1847 | 774 |
| 14 | 357 | 461 | 519 | 1399 | 873 | 443 | 1092 | 563 | 1588 | 1332 |
| 15 | 256 | 390 | 361 | 806 | 1094 | 571 | 1149 | 572 | 744 | 1712 |
| 16 | 233 | 362 | 215 | 380 | 1372 | 469 | 750 | 437 | 349 | 1398 |
| 17 | 174 | 257 | 162 | 263 | 1561 | 327 | 606 | 406 | 233 | 1159 |
| 18 | 150 | 202 | 138 | 297 | 1327 | 254 | 498 | 441 | 239 | 727 |
| 19 | 103 | 225 | 157 | 325 | 1170 | 273 | 506 | 513 | 240 | 563 |
| 20 | 133 | 171 | 183 | 419 | 1261 | 321 | 477 | 473 | 323 | 434 |
| 21 | 147 | 146 | 207 | 346 | 836 | 274 | 333 | 489 | 329 | 462 |
| 22 | 135 | 121 | 205 | 327 | 637 | 279 | 354 | 392 | 366 | 363 |
| 23 | 142 | 145 | 164 | 274 | 626 | 220 | 309 | 279 | 309 | 214 |
| 24 | 108 | 117 | 89 | 283 | 449 | 168 | 275 | 222 | 282 | 216 |
| 25 | 85 | 86 | 71 | 214 | 307 | 178 | 186 | 233 | 246 | 154 |
| 26 | 96 | 87 | 51 | 146 | 226 | 103 | 120 | 133 | 211 | 118 |
| 27 | 58 | 49 | 27 | 85 | 193 | 98 | 121 | 109 | 161 | 106 |
| 28 | 25 | 21 | 19 | 47 | 68 | 31 | 107 | 69 | 94 | 78 |
| 29 | 19 | 27 | 12 | 46 | 55 | 38 | 94 | 49 | 80 | 79 |
| 30 | 21 | 13 | 16 | 33 | 44 | 28 | 46 | 25 | 54 | 37 |
| 31 | 9 | 14 | 11 | 21 | 29 | 13 | 18 | 15 | 27 | 20 |
| 32 | 12 | 7 | 2 | 8 | 18 | 5 | 25 | 19 | 11 | 21 |
| 33 | 3 | 7 | 12 | | 15 | 3 | 6 | 9 | 15 | 13 |
| 34 | 8 | 7 | 11 | 4 | 8 | 3 | 8 | 14 | 8 | 10 |
| 35 | 4 | 5 | 2 | 2 | 11 | 3 | | 4 | 2 | 2 |
| 36 | 3 | | 6 | 5 | 2 | | 2 | | 3 | 0 |
| 37 | | | | | 2 | | | | 2 | |
| 38 | | | | 2 | 4 | | | | | |
| 39 | 2 | | | | | | | | | |
| 40 | | | 3 | | | | | | | |
| TOTAL | 3094 | 4068 | 3441 | 7989 | 14508 | 6886 | 9866 | 6782 | 12519 | 10778 |
| Hauls | 107 | 94 | 97 | 92 | 101 | 91 | 120 | 107 | 116 | 109 |

Table 10. Four spots megrim lenght composition of samples in Divisions VIIIc, IXa.

Lepidorhombus whiffiagonis

Spanish survey indices Kg/30 min

| Year | IXa2 | | VIIIc1 | | VIIIc2 | | Total area | |
|------|------|------|--------|------|--------|------|------------|------|
| | Yst | SE | Yst | SE | Yst | SE | Yst | SE |
| 1983 | 0.03 | 0.02 | 0.09 | 0.03 | 1.58 | 0.24 | 0.96 | 0.14 |
| 1984 | 0.04 | 0.01 | 0.66 | 0.13 | 3.21 | 0.58 | 1.92 | 0.34 |
| 1985 | 0.01 | 0.01 | 0.33 | 0.09 | 1.34 | 0.23 | 0.89 | 0.15 |
| 1986 | 0.02 | 0.02 | 0.19 | 0.05 | 2.82 | 0.35 | 1.65 | 0.20 |
| 1987 | - | - | - | - | - | - | - | - |
| 1988 | 0.02 | 0.01 | 0.95 | 0.4 | 5.64 | 1.13 | 3.52 | 0.64 |
| 1989 | 0.02 | 0.02 | 1.24 | 0.46 | 4.71 | 0.91 | 3.13 | 0.53 |
| 1990 | 0.31 | 0.1 | 0.54 | 0.12 | 4.98 | 1.55 | 2.96 | 0.78 |
| 1991 | 0.31 | 0.08 | 0.23 | 0.05 | 1.87 | 0.29 | 1.22 | 0.17 |
| 1992 | 0 | 0 | 0.23 | 0.06 | 2.37 | 0.36 | 1.39 | 0.20 |
| 1993 | 0.02 | 0.01 | 0.24 | 0.06 | 2.53 | 0.43 | 1.46 | 0.24 |

Lepidorhombus boscii

Spanish survey indices Kg/30 min

| Year | IXa2 | | VIIIc1 | | VIIIc2 | | Total area | |
|------|------|------|--------|------|--------|------|------------|------|
| | Yst | SE | Yst | SE | Yst | SE | Yst | SE |
| 1983 | 0.17 | 0.06 | 0.20 | 0.05 | 1.00 | 0.22 | 0.67 | 0.13 |
| 1984 | 0.57 | 0.13 | 1.05 | 0.17 | 0.74 | 0.13 | 0.76 | 0.08 |
| 1985 | 0.63 | 0.11 | 0.65 | 0.16 | 0.75 | 0.17 | 0.71 | 0.11 |
| 1986 | 1.78 | 0.53 | 1.09 | 0.12 | 1.87 | 0.38 | 1.68 | 0.28 |
| 1987 | - | - | - | - | - | - | - | - |
| 1988 | 3.03 | 0.47 | 3.62 | 0.63 | 2.85 | 0.49 | 3.10 | 0.33 |
| 1989 | 1.05 | 0.31 | 2.51 | 0.45 | 2.00 | 0.47 | 1.97 | 0.28 |
| 1990 | 2.21 | 0.27 | 2.24 | 0.26 | 1.69 | 0.19 | 1.93 | 0.14 |
| 1991 | 1.98 | 0.28 | 1.91 | 0.29 | 1.51 | 0.27 | 1.67 | 0.17 |
| 1992 | 1.27 | 0.18 | 1.83 | 0.30 | 2.27 | 0.32 | 1.98 | 0.20 |
| 1993 | 1.61 | 0.32 | 1.87 | 0.70 | 2.33 | 0.27 | 2.07 | 0.25 |

Table 11. Abundance indices in Spanish surveys (Kg/30 min.).

Megrim

L. whiffiagonis in Div. VIIIc-IXa.

| Year/age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7+ |
|----------|-----|------|------|------|------|-----|-----|-----|
| 1988 | 135 | 4445 | 2600 | 1305 | 1381 | 456 | 173 | 132 |
| 1989 | 710 | 3420 | 2744 | 1316 | 1382 | 360 | 118 | 104 |
| 1990 | 26 | 2184 | 1824 | 718 | 854 | 297 | 322 | 364 |
| 1991 | 310 | 337 | 792 | 356 | 451 | 214 | 57 | 7 |
| 1992 | 2 | 3067 | 273 | 400 | 570 | 290 | 53 | 39 |
| 1993 | 0 | 685 | 2181 | 164 | 419 | 210 | 42 | 2 |

Four Spots Megrim L. boscii in VIIIc-IXa ICES Div.1994 WG

| Year/age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7+ |
|----------|------|------|------|------|-----|-----|-----|----|
| 1988 | 652 | 5491 | 5177 | 1761 | 876 | 383 | 117 | 51 |
| 1989 | 2082 | 4086 | 2049 | 893 | 513 | 258 | 81 | 23 |
| 1990 | 112 | 4677 | 3183 | 546 | 696 | 386 | 181 | 88 |
| 1991 | 619 | 2266 | 2280 | 896 | 396 | 254 | 51 | 21 |
| 1992 | 604 | 8925 | 1037 | 1057 | 537 | 250 | 100 | 11 |
| 1993 | 74 | 5301 | 4150 | 563 | 384 | 131 | 88 | 43 |

Table 12. Abundance indices by age in Spanish Survey (thousands).

L. whiffiagonis Sub-Area VII
Total
Year: 1987

| Age | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL |
|-------|---|----|----|----|----|----|----|----|----|----|----|----|-------|
| 14.5 | | 1 | | | | | | | | | | | 1 |
| 15.5 | | 1 | | | | | | | | | | | 1 |
| 16.5 | | 1 | | | | | | | | | | | 1 |
| 17.5 | | 2 | | | | | | | | | | | 2 |
| 18.5 | | 6 | | | | | | | | | | | 6 |
| 19.5 | | 5 | 2 | | | | | | | | | | 7 |
| 20.5 | | | 6 | 2 | | | | | | | | | 8 |
| 21.5 | | 4 | 3 | 4 | | | | | | | | | 11 |
| 22.5 | | 4 | 5 | 8 | 1 | | | | | | | | 18 |
| 23.5 | | 2 | 23 | 8 | 2 | | | | | | | | 35 |
| 24.5 | | 1 | 20 | 19 | 1 | | | | | | | | 41 |
| 25.5 | | 1 | 15 | 12 | 6 | | | | | | | | 34 |
| 26.5 | | | 7 | 11 | 10 | | | | | | | | 28 |
| 27.5 | | | 5 | 10 | 11 | 1 | | | | | | | 27 |
| 28.5 | | | 3 | 6 | 7 | 3 | | | | | | | 19 |
| 29.5 | | | 2 | 7 | 3 | 2 | 1 | | | | | | 15 |
| 30.5 | | | 2 | 5 | 6 | 6 | | | | | | | 19 |
| 31.5 | | | | 1 | 9 | 7 | 2 | | | | | | 19 |
| 32.5 | | | | | 2 | 4 | 2 | | | | | | 8 |
| 33.5 | | | | | 4 | 2 | | | | | | | 6 |
| 34.5 | | | | | 1 | 5 | 4 | | | | | | 10 |
| 35.5 | | | | | 3 | 3 | 1 | | | | | | 7 |
| 36.5 | | | | | 1 | 3 | 3 | | | | | | 7 |
| 37.5 | | | | | | 4 | | | | | | | 4 |
| 38.5 | | | | | | 3 | | 1 | | | | | 4 |
| 39.5 | | | | | | 1 | 5 | | | | | | 6 |
| 40.5 | | | | | | 3 | 3 | 7 | 1 | | | | 14 |
| 41.5 | | | | | | | 2 | 4 | | | | | 6 |
| 42.5 | | | | | | 1 | 1 | 5 | 1 | | | | 8 |
| 43.5 | | | | | | | 2 | 7 | | 1 | | | 10 |
| 44.5 | | | | | | | 1 | 1 | 5 | | 1 | | 8 |
| 45.5 | | | | | | | | | 1 | | 1 | | 2 |
| 46.5 | | | | | | | | 1 | 1 | 1 | 2 | 2 | 7 |
| 47.5 | | | | | | | | 2 | | | | | 2 |
| 48.5 | | | | | | | | 2 | 2 | | | | 4 |
| 49.5 | | | | | | | | 1 | | | | | 1 |
| 50.5 | | | | | | | | | 2 | 1 | 1 | | 4 |
| 51.5 | | | | | | | | | | | | | 0 |
| 52.5 | | | | | | | | | | | | | 0 |
| 53.5 | | | | | | | | | | | | | 0 |
| 54.5 | | | | | | | | | | | | | 0 |
| 55.5 | | | | | | | | | | | | | 0 |
| 56.5 | | | | | | | | | | | | | 0 |
| TOTAL | 0 | 28 | 93 | 93 | 67 | 48 | 27 | 31 | 13 | 3 | 5 | 2 | 410 |

Table 13. 1987 age length key of Megrim (*L. whiffiagonis*) Sub-Area VII.

L. whiffiagonis Sub-Area VII

Total

Year: 1990

| Age | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | TOTAL |
|-------|---|----|-----|-----|----|----|----|----|----|----|----|----|----|----|-------|
| 14.5 | | 1 | | | | | | | | | | | | | 1 |
| 15.5 | | | | | | | | | | | | | | | 0 |
| 16.5 | | 1 | | | | | | | | | | | | | 1 |
| 17.5 | | | | | | | | | | | | | | | 0 |
| 18.5 | | 2 | 1 | | | | | | | | | | | | 3 |
| 19.5 | | 7 | 2 | 1 | | | | | | | | | | | 10 |
| 20.5 | | 14 | 14 | 1 | | | | | | | | | | | 29 |
| 21.5 | | 13 | 31 | 7 | | 1 | | | | | | | | | 52 |
| 22.5 | | 7 | 32 | 25 | 1 | | | | | | | | | | 65 |
| 23.5 | | 5 | 20 | 24 | 4 | | | | | | | | | | 53 |
| 24.5 | | | 24 | 29 | 13 | 2 | | | | | | | | | 68 |
| 25.5 | | | 6 | 38 | 16 | 4 | | | | | | | | | 64 |
| 26.5 | | | 3 | 9 | 17 | 6 | 1 | | | | | | | | 36 |
| 27.5 | | | | 8 | 17 | 5 | 1 | | 1 | | | | | | 32 |
| 28.5 | | | | 2 | 10 | 15 | 1 | 1 | | | | | | | 29 |
| 29.5 | | | | | 4 | 8 | 2 | 1 | | | | | | | 15 |
| 30.5 | | | | | 3 | 3 | | | | | | | | | 6 |
| 31.5 | | | | 1 | | 4 | 2 | | | | | | | | 7 |
| 32.5 | | | | | | 1 | | 1 | | | | | | | 2 |
| 33.5 | | | | | | | | | | | | | | | 0 |
| 34.5 | | | | | | 2 | 1 | | | | | | | | 3 |
| 35.5 | | | | | | | 2 | 1 | | | | | | | 3 |
| 36.5 | | | | 2 | | | 1 | 2 | | | | | | | 5 |
| 37.5 | | | | | | | 2 | 1 | | | | | | | 3 |
| 38.5 | | | | | | 1 | | 1 | 1 | | | | | | 3 |
| 39.5 | | | | | | | 1 | 1 | | 3 | 1 | 2 | | | 8 |
| 40.5 | | | | | | | | 7 | 6 | | | | | | 13 |
| 41.5 | | | | | | 1 | | 3 | 4 | 2 | 2 | | | | 12 |
| 42.5 | | | | | | | | 1 | 8 | 1 | | 1 | | | 11 |
| 43.5 | | | | | | 1 | | 1 | 6 | 3 | 1 | 2 | | | 14 |
| 44.5 | | | | | | | 1 | 4 | 5 | 6 | 5 | 1 | | | 22 |
| 45.5 | | | | | | 1 | 1 | 2 | 8 | 9 | 9 | | | | 30 |
| 46.5 | | | | | | 1 | 3 | 1 | 5 | 3 | 3 | | | | 16 |
| 47.5 | | | | | | | | | 1 | 5 | 3 | 2 | | | 11 |
| 48.5 | | | | | | | 2 | | 1 | 5 | 2 | 2 | | 1 | 13 |
| 49.5 | | | | | | | | | 1 | 1 | 1 | | | | 3 |
| 50.5 | | | | | | | | | 2 | 4 | 1 | 1 | 1 | | 9 |
| 51.5 | | | | | | | | 1 | 1 | 1 | | | 1 | | 4 |
| 52.5 | | | | | | | | | 1 | | | | | | 1 |
| 53.5 | | | | | | | | | | 1 | | | | | 1 |
| 54.5 | | | | | | | | | | | | | | | 0 |
| 55.5 | | | | | | | | | | | | | | | 0 |
| 56.5 | | | | | | | | | | 1 | | | | | 1 |
| TOTAL | 0 | 50 | 133 | 147 | 85 | 56 | 21 | 29 | 51 | 45 | 28 | 11 | 2 | 1 | 659 |

Table 13 cont. 1990 age length key of Megrin (*L. whiffiagonis*) Sub-Area VII.

L. whiffiagonis Sub-Area VII

Total

Year: 1991

| Age | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | TOTAL |
|-------|---|----|-----|-----|-----|-----|----|----|---|-------|
| 16 | | 1 | 4 | | | | | | | 5 |
| 17 | | 1 | 2 | 4 | | | | | | 7 |
| 18 | | | 8 | 7 | | | | | | 15 |
| 19 | | 2 | 17 | 12 | 2 | | | | | 33 |
| 20 | | 4 | 39 | 6 | 4 | | | | | 53 |
| 21 | | 2 | 43 | 13 | 5 | 1 | | | | 64 |
| 22 | | 1 | 46 | 30 | 8 | 4 | | | | 89 |
| 23 | | 1 | 37 | 29 | 12 | 2 | | | | 81 |
| 24 | | | 39 | 39 | 17 | 6 | | 1 | | 102 |
| 25 | | | 37 | 18 | 16 | 7 | 1 | | | 79 |
| 26 | | | 23 | 33 | 20 | 8 | | | | 84 |
| 27 | | | 9 | 34 | 27 | 5 | | | | 75 |
| 28 | | | 2 | 19 | 27 | 5 | | | | 53 |
| 29 | | | | 6 | 27 | 7 | 1 | | | 41 |
| 30 | | | | 8 | 30 | 10 | 2 | | | 50 |
| 31 | | | | 6 | 14 | 17 | 5 | 1 | | 43 |
| 32 | | | | 1 | 15 | 15 | 1 | | | 32 |
| 33 | | | | 3 | 22 | 14 | 2 | | | 41 |
| 34 | | | | | 9 | 11 | 2 | 1 | | 23 |
| 35 | | | | 4 | 18 | 17 | 4 | | | 43 |
| 36 | | 1 | | | 7 | 13 | 2 | 1 | | 24 |
| 37 | | | | | 4 | 16 | 2 | | 1 | 23 |
| 38 | | | | | 5 | 13 | 7 | 3 | | 28 |
| 39 | | | | | 3 | 12 | | | | 15 |
| 40 | | | | | 2 | 6 | 4 | | | 12 |
| 41 | | | | | 1 | 6 | 2 | | | 9 |
| 42 | | | | | | 2 | 3 | 1 | | 6 |
| 43 | | | | | | 6 | 5 | | | 11 |
| 44 | | | | | 1 | 3 | 3 | | | 7 |
| 45 | | | | | 2 | 1 | 4 | 3 | | 10 |
| 46 | | | | | | 4 | 7 | 1 | 1 | 13 |
| 47 | | | | | | 4 | 4 | 2 | 1 | 11 |
| 48 | | | | | | 4 | 1 | 1 | | 6 |
| 49 | | | | | | 2 | | | | 2 |
| 50 | | | | | | 3 | 1 | | | 4 |
| 51 | | | | | | 1 | 2 | | 1 | 4 |
| 52 | | | | | | | 1 | | | 1 |
| 53 | | | | | | | 1 | | | 1 |
| TOTAL | 0 | 13 | 306 | 272 | 298 | 225 | 67 | 15 | 4 | 1200 |

Table 13 cont. 1991 age length key of Megrim (*L. whiffiagonis*) Sub-Area VII.

L.whiffiagonis Sub-Area VII
Total
Year: 1992

| Age | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | TOTAL |
|-------|---|----|-----|-----|----|----|----|----|----|----|-------|
| 10.5 | | | | | | | | | | | 0 |
| 11.5 | | | | | | | | | | | 0 |
| 12.5 | | | | | | | | | | | 0 |
| 13.5 | | | | | | | | | | | 0 |
| 14.5 | | | 1 | | | | | | | | 1 |
| 15.5 | | | 4 | 2 | | | | | | | 6 |
| 16.5 | 2 | 10 | 2 | | | | | | | | 14 |
| 17.5 | | 11 | 5 | 2 | | | | | | | 18 |
| 18.5 | | 7 | 17 | 3 | | | | | | | 27 |
| 19.5 | | 6 | 27 | 2 | | | | | | | 35 |
| 20.5 | | 7 | 29 | 3 | | | | | | | 39 |
| 21.5 | | 5 | 30 | 5 | | | | | | | 40 |
| 22.5 | | 3 | 20 | 6 | 1 | | | | | | 30 |
| 23.5 | | 1 | 27 | 10 | 2 | | | | | | 40 |
| 24.5 | | 1 | 18 | 15 | | 1 | | | | | 35 |
| 25.5 | | | 15 | 15 | 2 | | | | | | 32 |
| 26.5 | | | 6 | 15 | 3 | | | | | | 24 |
| 27.5 | | | 13 | 13 | 3 | | | | | | 29 |
| 28.5 | | | 5 | 13 | 6 | | | | | | 24 |
| 29.5 | | | 2 | 20 | 1 | | | | | | 23 |
| 30.5 | | | 2 | 7 | 1 | | | | | | 10 |
| 31.5 | | | | 1 | 2 | 1 | | | | | 4 |
| 32.5 | | | | | 2 | 1 | | | | | 3 |
| 33.5 | | | | 1 | 3 | | | | | | 4 |
| 34.5 | | | | | | 1 | 1 | | | | 2 |
| 35.5 | | | | | 2 | | 2 | | | | 4 |
| 36.5 | | | | | | 1 | 4 | | | | 5 |
| 37.5 | | | | | 2 | 5 | 2 | 2 | | | 11 |
| 38.5 | | | | 2 | 1 | 2 | 10 | 1 | | | 16 |
| 39.5 | | | | | 1 | 6 | 5 | 2 | | | 14 |
| 40.5 | | | | | 1 | 2 | 8 | | | | 11 |
| 41.5 | | | | | 1 | 1 | 5 | 1 | | | 8 |
| 42.5 | | | | | | 1 | 4 | 1 | 1 | | 7 |
| 43.5 | | | | | | | 5 | | 1 | | 6 |
| 44.5 | | | | | | | 2 | 3 | | | 5 |
| 45.5 | | | | | | | 2 | | 1 | | 3 |
| 46.5 | | | | | | 1 | | 3 | | | 4 |
| 47.5 | | | | | | | 2 | 1 | 3 | 1 | 7 |
| 48.5 | | | | | | | | 1 | 2 | 1 | 4 |
| 49.5 | | | | | | | | | 1 | | 1 |
| 50.5 | | | | | | | | | 3 | | 3 |
| 51.5 | | | | | | | | | 1 | 3 | 4 |
| 52.5 | | | | | | | | | 1 | 1 | 2 |
| 53.5 | | | | | | | | | 1 | 2 | 3 |
| 54.5 | | | | | | | | | | 1 | 1 |
| 55.5 | | | | | | | | | | | 0 |
| TOTAL | 2 | 56 | 220 | 133 | 34 | 23 | 52 | 15 | 15 | 9 | 559 |

Table 13 cont. 1992 age length key of Megrin (*L. whiffiagonis*) Sub-Area VII.

L.whiffiagonis Sub-Area VII
Total Males
Year: 1993

| Age | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | TOTAL |
|-------|---|----|-----|----|----|---|---|---|---|----|-------|
| 10.5 | | | | | | | | | | | 0 |
| 11.5 | | | | | | | | | | | 0 |
| 12.5 | 1 | | | | | | | | | | 1 |
| 13.5 | | | | | | | | | | | 0 |
| 14.5 | | | | | | | | | | | 0 |
| 15.5 | | 5 | | | | | | | | | 5 |
| 16.5 | | 10 | | | | | | | | | 10 |
| 17.5 | | 6 | 7 | | | | | | | | 13 |
| 18.5 | | 7 | 15 | | | | | | | | 22 |
| 19.5 | | 2 | 21 | 2 | | | | | | | 25 |
| 20.5 | | 2 | 17 | 6 | | | | | | | 25 |
| 21.5 | | 1 | 30 | 6 | | | | | | | 37 |
| 22.5 | | | 18 | 14 | 1 | | | | | | 33 |
| 23.5 | | | 7 | 6 | | | | | | | 13 |
| 24.5 | | | 1 | 11 | 3 | | | | | | 15 |
| 25.5 | | | 3 | 15 | 1 | | | | | | 19 |
| 26.5 | | | 2 | 8 | 6 | 1 | | | | | 17 |
| 27.5 | | | 2 | 9 | 8 | 1 | | | | | 20 |
| 28.5 | | | | 5 | 9 | 1 | | | | | 15 |
| 29.5 | | | | 4 | 8 | | | | | | 12 |
| 30.5 | | | | | 2 | 2 | | | | | 4 |
| 31.5 | | | | | | | | | | | 0 |
| 32.5 | | | | 1 | 1 | 1 | | | | | 3 |
| 33.5 | | | | | | | | | 1 | | 1 |
| 34.5 | | | | | | 1 | | | | | 1 |
| 35.5 | | | | | 1 | | | | | | 1 |
| 36.5 | | | | | | | | | | | 0 |
| 37.5 | | | | | | | 1 | | | | 1 |
| 38.5 | | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | | 0 |
| 41.5 | | | | | | | | | | | 0 |
| 42.5 | | | | | | | | | | | 0 |
| 43.5 | | | | | | | | | | | 0 |
| 44.5 | | | | | | | | | | | 0 |
| 45.5 | | | | | | | | | | | 0 |
| 46.5 | | | | | | | | | | | 0 |
| 47.5 | | | | | | | | | | | 0 |
| 48.5 | | | | | | | | | | | 0 |
| 49.5 | | | | | | | | | | | 0 |
| 50.5 | | | | | | | | | | | 0 |
| TOTAL | 1 | 33 | 123 | 87 | 40 | 7 | 1 | 0 | 1 | 0 | 293 |

Table 13 cont. 1993 age length key of Megrim (*L. whiffiagonis*) males.
Sub-area VII.

L.whiffiagonis Sub-Area VII
Total Females
Year: 1993

| Age | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | TOTAL |
|-------|---|---|----|----|-----|----|----|----|----|----|----|-------|
| 10.5 | | | | | | | | | | | | 0 |
| 11.5 | | | | | | | | | | | | 0 |
| 12.5 | | | | | | | | | | | | 0 |
| 13.5 | | | | | | | | | | | | 0 |
| 14.5 | | | 1 | | | | | | | | | 1 |
| 15.5 | | | 2 | | | | | | | | | 2 |
| 16.5 | | | 2 | 1 | | | | | | | | 3 |
| 17.5 | | | 7 | | | | | | | | | 7 |
| 18.5 | | | 8 | 3 | | | | | | | | 11 |
| 19.5 | | | 6 | 12 | | | | | | | | 18 |
| 20.5 | | | | 14 | 2 | | | | | | | 16 |
| 21.5 | | | | 10 | 4 | | | | | | | 14 |
| 22.5 | | | | 17 | 4 | | | | | | | 21 |
| 23.5 | | | | 19 | 10 | | | | | | | 29 |
| 24.5 | | | | 9 | 9 | | | | | | | 18 |
| 25.5 | | | | 1 | 15 | 4 | | | | | | 20 |
| 26.5 | | | | 1 | 23 | 3 | | | | | | 27 |
| 27.5 | | | | 2 | 20 | 5 | | | | | | 27 |
| 28.5 | | | | | 21 | 3 | | | | | | 24 |
| 29.5 | | | | | 16 | 11 | | | | | | 27 |
| 30.5 | | | | | 19 | 6 | 1 | | | | | 26 |
| 31.5 | | | | | 3 | 7 | 2 | | | | | 12 |
| 32.5 | | | | | 3 | 9 | 1 | | | | | 13 |
| 33.5 | | | | | 1 | 6 | 6 | | | | | 13 |
| 34.5 | | | | | 1 | 5 | 6 | | | | | 12 |
| 35.5 | | | | | | 10 | 3 | | | | | 13 |
| 36.5 | | | | | 1 | 7 | 3 | | | | | 11 |
| 37.5 | | | | | | 2 | 3 | | | | | 5 |
| 38.5 | | | | | 2 | 3 | 5 | | 1 | | | 11 |
| 39.5 | | | | | | 1 | 2 | 3 | | | | 6 |
| 40.5 | | | | | | 1 | 7 | 2 | 1 | | | 11 |
| 41.5 | | | | | | | 5 | 4 | | | | 9 |
| 42.5 | | | | | | | 1 | 2 | | | | 3 |
| 43.5 | | | | | | | 1 | 1 | | | | 2 |
| 44.5 | | | | | | | 2 | | | | | 2 |
| 45.5 | | | | | | | 1 | 4 | | | | 5 |
| 46.5 | | | | | | | 1 | 1 | | | | 2 |
| 47.5 | | | | | | | | 2 | | | | 2 |
| 48.5 | | | | | | | | 2 | 2 | | | 4 |
| 49.5 | | | | | | | | 1 | 6 | 1 | | 8 |
| 50.5 | | | | | | | | 2 | 3 | | | 5 |
| 51.5 | | | | | | | | | 1 | | 1 | 2 |
| 52.5 | | | | | | | | | | 1 | | 1 |
| 53.5 | | | | | | | | | | | | 0 |
| 54.5 | | | | | | | | | | | | 0 |
| 55.5 | | | | | | | | | | | | 0 |
| 56.5 | | | | | | | | | 1 | | | 1 |
| 57.5 | | | | | | | | | | | | 0 |
| 58.5 | | | | | | | | | | | 1 | 1 |
| 59.5 | | | | | | | | | | | | 0 |
| 60.5 | | | | | | | | | | | | 0 |
| TOTAL | 0 | 0 | 26 | 89 | 154 | 83 | 50 | 24 | 15 | 2 | 2 | 445 |

Table 13 cont. 1993 age length key of Megrim (*L. whiffiagonis*) females.
Sub-area VII.

L. whiffiagonis Division VIIIc, IXa

Total

Year: 1990

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|-----|----|----|----|----|----|----|---|-------|
| 10.5 | 1 | | | | | | | | | 1 |
| 11.5 | 1 | | | | | | | | | 1 |
| 12.5 | | 1 | | | | | | | | 1 |
| 13.5 | | 1 | | | | | | | | 1 |
| 14.5 | | 4 | | | | | | | | 4 |
| 15.5 | | 16 | | | | | | | | 16 |
| 16.5 | | 20 | | | | | | | | 20 |
| 17.5 | | 17 | 1 | | | | | | | 18 |
| 18.5 | | 22 | | | | | | | | 22 |
| 19.5 | | 18 | 6 | 1 | | | | | | 25 |
| 20.5 | | 15 | 5 | | | | | | | 20 |
| 21.5 | | 3 | 9 | 3 | | | | | | 15 |
| 22.5 | | | 10 | 1 | | | | | | 11 |
| 23.5 | | 1 | 7 | 2 | 5 | | | | | 15 |
| 24.5 | | | 11 | 5 | 3 | | | | | 19 |
| 25.5 | | | 6 | 6 | 2 | 1 | | | | 15 |
| 26.5 | | | 9 | 3 | 3 | 3 | 1 | | | 19 |
| 27.5 | | | 8 | 2 | 7 | 2 | 4 | | | 23 |
| 28.5 | | | 5 | 3 | 6 | 2 | 4 | | | 20 |
| 29.5 | | | 2 | 1 | 6 | 1 | 3 | 2 | | 15 |
| 30.5 | | | 1 | 2 | 8 | 1 | | 3 | | 15 |
| 31.5 | | | 2 | 3 | 3 | 1 | 4 | 4 | | 17 |
| 32.5 | | | | 2 | 1 | 4 | 1 | 1 | | 9 |
| 33.5 | | | | 1 | 3 | 2 | 1 | 1 | | 8 |
| 34.5 | | | | | 2 | 1 | 2 | 3 | | 8 |
| 35.5 | | | | | | 1 | 2 | 2 | | 5 |
| 36.5 | | | | | | | 3 | 3 | | 6 |
| 37.5 | | | | | | | 1 | 4 | | 5 |
| 38.5 | | | | | | | | 6 | | 6 |
| 39.5 | | | | | | | 1 | 4 | | 5 |
| 40.5 | | | | | | | | 1 | | 1 |
| 41.5 | | | | | | | | 2 | | 2 |
| 42.5 | | | | | | | 1 | 2 | | 3 |
| 43.5 | | | | | | | | 4 | | 4 |
| 44.5 | | | | | | | | 1 | | 1 |
| 45.5 | | | | | | | | 1 | | 1 |
| 46.5 | | | | | | | | | | 0 |
| 47.5 | | | | | | | | | | 0 |
| 48.5 | | | | | | | | | | 0 |
| 49.5 | | | | | | | | | | 0 |
| 50.5 | | | | | | | | | | 0 |
| TOTAL | 2 | 118 | 82 | 35 | 49 | 19 | 28 | 44 | 0 | 377 |

Table 13 cont. 1990 age length key of Megrin (*L. whiffiagonis*)
Division VIIIc, IXa.

L. whiffiagonis Division VIIIc, IXa

Total

Year: 1991

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | TOTAL |
|-------|----|----|-----|-----|-----|-----|----|----|---|---|-------|
| 10.5 | 10 | | | | | | | | | | 10 |
| 11.5 | 5 | | | | | | | | | | 5 |
| 12.5 | | 1 | | | | | | | | | 1 |
| 13.5 | | 1 | | | | | | | | | 1 |
| 14.5 | | 1 | | | | | | | | | 1 |
| 15.5 | | 1 | 1 | | | | | | | | 2 |
| 16.5 | | 6 | 1 | | | | | | | | 7 |
| 17.5 | | 14 | 11 | | | | | | | | 25 |
| 18.5 | | 15 | 9 | 1 | | | | | | | 25 |
| 19.5 | | 7 | 10 | 7 | | | | | | | 24 |
| 20.5 | | 14 | 14 | 7 | | | | | | | 35 |
| 21.5 | | 1 | 24 | 8 | 3 | 2 | | | | | 38 |
| 22.5 | | 3 | 31 | 10 | 3 | 3 | | | | | 50 |
| 23.5 | | | 36 | 10 | 7 | 1 | | | | | 54 |
| 24.5 | | | 49 | 8 | 7 | 6 | | | | | 70 |
| 25.5 | | | 32 | 9 | 14 | 10 | | | | | 65 |
| 26.5 | | | 31 | 12 | 13 | 5 | | | | | 61 |
| 27.5 | | | 25 | 8 | 12 | 11 | 1 | | | | 57 |
| 28.5 | | | 13 | 8 | 11 | 10 | 4 | | | | 46 |
| 29.5 | | | 7 | 5 | 10 | 8 | | | | | 30 |
| 30.5 | | | 5 | 4 | 5 | 13 | 2 | | | | 29 |
| 31.5 | | | 1 | 5 | 10 | 11 | 1 | | | | 28 |
| 32.5 | | | 2 | 5 | 6 | 9 | 4 | | | | 26 |
| 33.5 | | | | 3 | 9 | 11 | 8 | 1 | | | 32 |
| 34.5 | | | | 1 | 5 | 11 | 4 | 1 | | | 22 |
| 35.5 | | | | | 3 | 10 | 5 | 2 | | | 20 |
| 36.5 | | | | | 3 | 4 | 4 | 4 | 2 | | 17 |
| 37.5 | | | | | | 4 | 2 | 4 | | | 10 |
| 38.5 | | | | | | 1 | 5 | 2 | 1 | | 9 |
| 39.5 | | | | | | 4 | 6 | 3 | | | 13 |
| 40.5 | | | | | | 1 | 3 | 1 | 1 | | 6 |
| 41.5 | | | | | | | 3 | 2 | | | 5 |
| 42.5 | | | | | | 1 | | 2 | 1 | | 4 |
| 43.5 | | | | | | 1 | | 2 | | | 3 |
| 44.5 | | | | | | | | | | | 0 |
| 45.5 | | | | | | | | 2 | | | 2 |
| 46.5 | | | | | | | 1 | | 1 | | 2 |
| 47.5 | | | | | | | | | 1 | | 1 |
| 48.5 | | | | | | 1 | | | | | 1 |
| 49.5 | | | | | | | | 2 | | | 2 |
| 50.5 | | | | | | | | | | 1 | 1 |
| Total | 15 | 64 | 302 | 111 | 121 | 138 | 53 | 28 | 7 | 1 | 840 |

Table 13 cont. 1991 age length key of Megrin (*L. whiffiagonis*)
Division VIIIc, IXa.

L. whiffiagonis Division VIIIc, IXa

Total

Year: 1992

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|-----|----|----|-----|----|----|----|---|-------|
| 10.5 | | 4 | | | | | | | | 4 |
| 11.5 | | 4 | | | | | | | | 4 |
| 12.5 | | 6 | | | | | | | | 6 |
| 13.5 | | 6 | | | | | | | | 6 |
| 14.5 | | 10 | | | | | | | | 10 |
| 15.5 | | 10 | | | | | | | | 10 |
| 16.5 | | 11 | | | | | | | | 11 |
| 17.5 | | 12 | 1 | | | | | | | 13 |
| 18.5 | | 13 | | | | | | | | 13 |
| 19.5 | | 14 | | | | | | | | 14 |
| 20.5 | | 12 | 6 | 1 | | | | | | 19 |
| 21.5 | | 10 | 7 | 2 | | | | | | 19 |
| 22.5 | | 3 | 4 | 14 | 2 | | | | | 23 |
| 23.5 | | | 6 | 8 | 9 | | | | | 23 |
| 24.5 | | | 2 | 12 | 11 | | | | | 25 |
| 25.5 | | | 1 | 14 | 15 | | | | | 30 |
| 26.5 | | | | 9 | 20 | 1 | | | | 30 |
| 27.5 | | | 1 | 4 | 13 | 3 | | | | 21 |
| 28.5 | | | 2 | 2 | 6 | 5 | | | | 15 |
| 29.5 | | | | 1 | 10 | 9 | | | | 20 |
| 30.5 | | | | 2 | 8 | 5 | | | | 15 |
| 31.5 | | | | 1 | 7 | 5 | | | | 13 |
| 32.5 | | | | 2 | 4 | 4 | | | | 10 |
| 33.5 | | | | | 6 | 4 | 1 | | | 11 |
| 34.5 | | | | 2 | 3 | 7 | | | | 12 |
| 35.5 | | | | | 2 | 7 | 1 | | | 10 |
| 36.5 | | | | | 2 | 6 | | | | 8 |
| 37.5 | | | | | 4 | 4 | 1 | | | 9 |
| 38.5 | | | | | | 2 | 4 | | | 6 |
| 39.5 | | | | | | 8 | 3 | 1 | | 12 |
| 40.5 | | | | | | 1 | 3 | | | 4 |
| 41.5 | | | | | | | 4 | 3 | | 7 |
| 42.5 | | | | | | | | 3 | | 3 |
| 43.5 | | | | | | | | | 1 | 1 |
| 44.5 | | | | | | | | 1 | | 1 |
| 45.5 | | | | | | | | 3 | | 3 |
| 46.5 | | | | | | | 1 | | 1 | 2 |
| 47.5 | | | | | | | | | 1 | 1 |
| 48.5 | | | | | | | 1 | | 1 | 2 |
| 49.5 | | | | | | | | 1 | | 1 |
| 50.5 | | | | | | | 1 | | | 1 |
| TOTAL | 0 | 115 | 30 | 74 | 122 | 71 | 20 | 12 | 4 | 448 |

Table 13 cont. 1992 age length key of Megrin (*L. whiffiagonis*)
Division VIIIc, IXa.

L. whiffiagonis Division VIIIc, IXa

Total

Year: 1993

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|----|-----|----|----|----|----|---|---|-------|
| 10.5 | | | | | | | | | | 0 |
| 11.5 | | 1 | | | | | | | | 1 |
| 12.5 | | 1 | | | | | | | | 1 |
| 13.5 | | 3 | 1 | | | | | | | 4 |
| 14.5 | | 6 | 4 | | | | | | | 10 |
| 15.5 | | 7 | 3 | | | | | | | 10 |
| 16.5 | | 11 | 2 | | | | | | | 13 |
| 17.5 | | 9 | 6 | | | | | | | 15 |
| 18.5 | | 4 | 15 | | | | | | | 19 |
| 19.5 | | 3 | 14 | | | | | | | 17 |
| 20.5 | | 3 | 13 | | | | | | | 16 |
| 21.5 | | 2 | 15 | | | | | | | 17 |
| 22.5 | | 1 | 16 | 3 | | | | | | 20 |
| 23.5 | | | 10 | 2 | 1 | | | | | 13 |
| 24.5 | | | 8 | 4 | 4 | | | | | 16 |
| 25.5 | | | 8 | 2 | 4 | | | | | 14 |
| 26.5 | | | 7 | 1 | 5 | 1 | | | | 14 |
| 27.5 | | | 3 | 2 | 4 | 6 | 1 | | | 16 |
| 28.5 | | | 3 | 3 | 5 | 3 | | | | 14 |
| 29.5 | | | 1 | 2 | 7 | 3 | 2 | | | 15 |
| 30.5 | | | | 2 | 4 | 5 | 2 | | | 13 |
| 31.5 | | | | | 4 | 5 | 1 | | | 10 |
| 32.5 | | | | | 3 | 6 | 2 | | | 11 |
| 33.5 | | | | | 2 | 5 | 2 | | | 9 |
| 34.5 | | | | | 2 | 5 | 1 | | | 8 |
| 35.5 | | | | | 2 | 5 | | | | 7 |
| 36.5 | | | | | | 11 | | | | 11 |
| 37.5 | | | | | | 2 | 4 | | | 6 |
| 38.5 | | | | | | 1 | 1 | | | 2 |
| 39.5 | | | | | | | 3 | | | 3 |
| 40.5 | | | | | | | 2 | 2 | | 4 |
| 41.5 | | | | | | | | 1 | | 1 |
| 42.5 | | | | | | | | 2 | | 2 |
| 43.5 | | | | | | | | 1 | | 1 |
| 44.5 | | | | | | | | 2 | 2 | 4 |
| 45.5 | | | | | | | | | 1 | 1 |
| 46.5 | | | | | | | | | 1 | 1 |
| 47.5 | | | | | | | | | | 0 |
| 48.5 | | | | | | | | | | 0 |
| 49.5 | | | | | | | | | | 0 |
| 50.5 | | | | | | | | | | 0 |
| TOTAL | 0 | 51 | 129 | 21 | 47 | 58 | 21 | 8 | 4 | 339 |

Table 13 cont. 1993 age length key of Megrim (*L. whiffiagonis*)
Division VIIIc, IXa.

L. whiffiagonis Division VIIIc, IXa
Spanish Survey
Year: 1990

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|-----|----|----|----|----|----|----|---|-------|
| 5.5 | | | | | | | | | | 0 |
| 6.5 | | | | | | | | | | 0 |
| 7.5 | | | | | | | | | | 0 |
| 8.5 | 1 | | | | | | | | | 1 |
| 9.5 | 1 | | | | | | | | | 1 |
| 10.5 | 1 | | | | | | | | | 1 |
| 11.5 | 1 | | | | | | | | | 1 |
| 12.5 | | 1 | | | | | | | | 1 |
| 13.5 | | 1 | | | | | | | | 1 |
| 14.5 | | 4 | | | | | | | | 4 |
| 15.5 | | 16 | | | | | | | | 16 |
| 16.5 | | 20 | | | | | | | | 20 |
| 17.5 | | 17 | 1 | | | | | | | 18 |
| 18.5 | | 22 | | | | | | | | 22 |
| 19.5 | | 18 | 6 | 1 | | | | | | 25 |
| 20.5 | | 15 | 5 | | | | | | | 20 |
| 21.5 | | 3 | 9 | 3 | | | | | | 15 |
| 22.5 | | | 10 | 1 | | | | | | 11 |
| 23.5 | | 1 | 7 | 2 | 5 | | | | | 15 |
| 24.5 | | | 11 | 5 | 3 | | | | | 19 |
| 25.5 | | | 6 | 6 | 2 | 1 | | | | 15 |
| 26.5 | | | 9 | 3 | 3 | 3 | 1 | | | 19 |
| 27.5 | | | 8 | 2 | 7 | 2 | 4 | | | 23 |
| 28.5 | | | 5 | 3 | 6 | 2 | 4 | | | 20 |
| 29.5 | | | 2 | 1 | 6 | 1 | 3 | 2 | | 15 |
| 30.5 | | | 1 | 2 | 8 | 1 | | 3 | | 15 |
| 31.5 | | | 2 | 3 | 3 | 1 | 4 | 4 | | 17 |
| 32.5 | | | | 2 | 1 | 4 | 1 | 1 | | 9 |
| 33.5 | | | | 1 | 3 | 2 | 1 | 1 | | 8 |
| 34.5 | | | | | 2 | 1 | 2 | 3 | | 8 |
| 35.5 | | | | | | 1 | 2 | 2 | | 5 |
| 36.5 | | | | | | | 3 | 3 | | 6 |
| 37.5 | | | | | | | 1 | 4 | | 5 |
| 38.5 | | | | | | | | 6 | | 6 |
| 39.5 | | | | | | | 1 | 4 | | 5 |
| 40.5 | | | | | | | | 1 | | 1 |
| 41.5 | | | | | | | | 2 | | 2 |
| 42.5 | | | | | | | 1 | 2 | | 3 |
| 43.5 | | | | | | | | 4 | | 4 |
| 44.5 | | | | | | | | 1 | | 1 |
| 45.5 | | | | | | | | | | 0 |
| 46.5 | | | | | | | | | | 0 |
| 47.5 | | | | | | | | | | 0 |
| 48.5 | | | | | | | | | | 0 |
| 49.5 | | | | | | | | | | 0 |
| 50.5 | | | | | | | | | | 0 |
| TOTAL | 4 | 118 | 82 | 35 | 49 | 19 | 28 | 43 | 0 | 378 |

Table 13 cont. 1990 age length key of Megrim (*L. whiffiagonis*)
Division VIIIc, IXa.

L. whiffiagonis Division VIIIc, IXa
Spanish Survey
Year: 1991

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|----|----|----|----|----|----|----|---|---|-------|
| 5.5 | | | | | | | | | | 0 |
| 6.5 | 2 | | | | | | | | | 2 |
| 7.5 | 8 | | | | | | | | | 8 |
| 8.5 | 14 | | | | | | | | | 14 |
| 9.5 | 12 | | | | | | | | | 12 |
| 10.5 | 10 | | | | | | | | | 10 |
| 11.5 | 4 | | | | | | | | | 4 |
| 12.5 | | | | | | | | | | 0 |
| 13.5 | | | | | | | | | | 0 |
| 14.5 | | 1 | | | | | | | | 1 |
| 15.5 | | 1 | | | | | | | | 1 |
| 16.5 | | 6 | | | | | | | | 6 |
| 17.5 | | 13 | 2 | | | | | | | 15 |
| 18.5 | | 15 | 1 | | | | | | | 16 |
| 19.5 | | 7 | 3 | 5 | | | | | | 15 |
| 20.5 | | 13 | 6 | 1 | | | | | | 20 |
| 21.5 | | 1 | 13 | 2 | | | | | | 16 |
| 22.5 | | 3 | 14 | 1 | 1 | 1 | | | | 20 |
| 23.5 | | | 10 | 5 | 4 | | | | | 19 |
| 24.5 | | | 10 | 4 | 6 | | | | | 20 |
| 25.5 | | | 13 | 2 | 5 | | | | | 20 |
| 26.5 | | | 3 | 5 | 5 | | | | | 13 |
| 27.5 | | | 6 | 3 | 4 | 3 | 1 | | | 17 |
| 28.5 | | | 4 | 3 | 3 | 1 | | | | 11 |
| 29.5 | | | 2 | 2 | 3 | 4 | | | | 11 |
| 30.5 | | | 2 | 2 | 3 | 2 | | | | 9 |
| 31.5 | | | 1 | 2 | 4 | 3 | | | | 10 |
| 32.5 | | | 2 | 3 | 5 | | | | | 10 |
| 33.5 | | | | 1 | 5 | 3 | 1 | | | 10 |
| 34.5 | | | | | 5 | 3 | 1 | | | 9 |
| 35.5 | | | | | 2 | 5 | | | | 7 |
| 36.5 | | | | | 1 | 3 | 2 | | | 6 |
| 37.5 | | | | | | 2 | | | | 2 |
| 38.5 | | | | | | 1 | 2 | 1 | | 4 |
| 39.5 | | | | | | | 3 | | | 3 |
| 40.5 | | | | | | | 1 | | | 1 |
| 41.5 | | | | | | | 1 | | | 1 |
| 42.5 | | | | | | | | | 1 | 1 |
| 43.5 | | | | | | | | | | 0 |
| 44.5 | | | | | | | | | | 0 |
| 45.5 | | | | | | | | 1 | | 1 |
| 46.5 | | | | | | | | | | 0 |
| 47.5 | | | | | | | | | | 0 |
| 48.5 | | | | | | | | | | 0 |
| 49.5 | | | | | | | | | | 0 |
| 50.5 | | | | | | | | | | 0 |
| TOTAL | 50 | 60 | 92 | 41 | 56 | 31 | 12 | 2 | 1 | 345 |

Table 13 cont. 1991 age length key of Megrin (*L. whiffiagonis*)
Division VIIIc, IXa.

L. whiffiagonis Division VIIIc, IXa
Spanish Survey
Year: 1992

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|-----|----|----|-----|----|----|----|---|-------|
| 5.5 | | | | | | | | | | 0 |
| 6.5 | | | | | | | | | | 0 |
| 7.5 | 1 | | | | | | | | | 1 |
| 8.5 | | | | | | | | | | 0 |
| 9.5 | | | | | | | | | | 0 |
| 10.5 | | 4 | | | | | | | | 4 |
| 11.5 | | 4 | | | | | | | | 4 |
| 12.5 | | 6 | | | | | | | | 6 |
| 13.5 | | 6 | | | | | | | | 6 |
| 14.5 | | 12 | | | | | | | | 12 |
| 15.5 | | 20 | | | | | | | | 20 |
| 16.5 | | 25 | | | | | | | | 25 |
| 17.5 | | 26 | 2 | | | | | | | 28 |
| 18.5 | | 21 | | | | | | | | 21 |
| 19.5 | | 17 | | | | | | | | 17 |
| 20.5 | | 14 | 7 | 1 | | | | | | 22 |
| 21.5 | | 4 | 10 | 2 | 1 | | | | | 17 |
| 22.5 | | | 4 | 7 | 3 | | | | | 14 |
| 23.5 | | | 6 | 3 | 4 | 1 | | | | 14 |
| 24.5 | | 1 | 4 | 9 | 8 | | | | | 22 |
| 25.5 | | | 1 | 14 | 9 | | | | | 24 |
| 26.5 | | | 1 | 7 | 13 | 4 | | | | 25 |
| 27.5 | | | 3 | 1 | 15 | 4 | | | | 23 |
| 28.5 | | | 4 | 9 | 12 | 5 | 1 | | | 31 |
| 29.5 | | | | 3 | 11 | 12 | | | | 26 |
| 30.5 | | | 1 | 5 | 12 | 7 | | | | 25 |
| 31.5 | | | | 2 | 10 | 7 | | | | 19 |
| 32.5 | | | | 4 | 8 | 9 | 3 | | | 24 |
| 33.5 | | | | | 8 | 6 | 1 | 1 | | 16 |
| 34.5 | | | | 2 | 3 | 6 | | | | 11 |
| 35.5 | | | | | 2 | 11 | 2 | | | 15 |
| 36.5 | | | | | 2 | 5 | | | | 7 |
| 37.5 | | | | | 4 | 4 | 1 | | | 9 |
| 38.5 | | | | | | 2 | 3 | | | 5 |
| 39.5 | | | | | | 7 | 3 | 1 | | 11 |
| 40.5 | | | | | | 1 | 1 | | | 2 |
| 41.5 | | | | | | | 4 | 3 | | 7 |
| 42.5 | | | | | | | | 3 | | 3 |
| 43.5 | | | | | | | | | | 0 |
| 44.5 | | | | | | | | 1 | | 1 |
| 45.5 | | | | | | | | 3 | | 3 |
| 46.5 | | | | | | | 1 | | 1 | 2 |
| 47.5 | | | | | | | | | 1 | 1 |
| 48.5 | | | | | | | 1 | | 1 | 2 |
| 49.5 | | | | | | | | 1 | | 1 |
| 50.5 | | | | | | | | | | 0 |
| TOTAL | 1 | 160 | 43 | 69 | 125 | 91 | 21 | 13 | 3 | 526 |

Table 13 cont. 1992 age length key of Megrim (*L. whiffiagonis*)
Division VIIIc, IXa.

L. whiffiagonis Division VIIIc, IXa
Spanish Survey
Year: 1993

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|----|-----|----|----|----|----|---|---|-------|
| 5.5 | | | | | | | | | | 0 |
| 6.5 | | | | | | | | | | 0 |
| 7.5 | | | | | | | | | | 0 |
| 8.5 | | | | | | | | | | 0 |
| 9.5 | | | | | | | | | | 0 |
| 10.5 | | | | | | | | | | 0 |
| 11.5 | | | | | | | | | | 0 |
| 12.5 | | | | | | | | | | 0 |
| 13.5 | | 3 | 1 | | | | | | | 4 |
| 14.5 | | 6 | 3 | | | | | | | 9 |
| 15.5 | | 7 | 3 | | | | | | | 10 |
| 16.5 | | 11 | | | | | | | | 11 |
| 17.5 | | 9 | 1 | | | | | | | 10 |
| 18.5 | | 4 | 6 | | | | | | | 10 |
| 19.5 | | 7 | 13 | | | | | | | 20 |
| 20.5 | | 6 | 13 | | | | | | | 19 |
| 21.5 | | 3 | 16 | | | | | | | 19 |
| 22.5 | | 2 | 14 | 1 | 1 | | | | | 18 |
| 23.5 | | | 17 | 1 | 2 | | | | | 20 |
| 24.5 | | | 16 | | 3 | | | | | 19 |
| 25.5 | | | 15 | 2 | 2 | | | | | 19 |
| 26.5 | | | 15 | 2 | 3 | 1 | | | | 21 |
| 27.5 | | | 6 | 2 | 7 | 3 | | | | 18 |
| 28.5 | | | 6 | 3 | 9 | 2 | | | | 20 |
| 29.5 | | | 2 | 4 | 9 | 2 | 1 | | | 18 |
| 30.5 | | | | 3 | 5 | 7 | 2 | | | 17 |
| 31.5 | | | | | 6 | 8 | 2 | | | 16 |
| 32.5 | | | | | 5 | 9 | 3 | | | 17 |
| 33.5 | | | | | 4 | 7 | 4 | | | 15 |
| 34.5 | | | | | 2 | 4 | 1 | | | 7 |
| 35.5 | | | | | 1 | 4 | | | | 5 |
| 36.5 | | | | | | 8 | | | | 8 |
| 37.5 | | | | | | 2 | | | | 2 |
| 38.5 | | | | | | 1 | | | | 1 |
| 39.5 | | | | | | | 1 | | | 1 |
| 40.5 | | | | | | | 1 | 1 | | 2 |
| 41.5 | | | | | | | | | | 0 |
| 42.5 | | | | | | | | | | 0 |
| 43.5 | | | | | | | | | | 0 |
| 44.5 | | | | | | | | | | 0 |
| 45.5 | | | | | | | | | | 0 |
| 46.5 | | | | | | | | | 1 | 1 |
| 47.5 | | | | | | | | | | 0 |
| 48.5 | | | | | | | | | | 0 |
| 49.5 | | | | | | | | | | 0 |
| 50.5 | | | | | | | | | | 0 |
| TOTAL | 0 | 58 | 147 | 18 | 59 | 58 | 15 | 1 | 1 | 357 |

Table 13 cont. 1993 age length key of Megrim (*L. whiffiagonis*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa

Total

Year: 1990

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|----|-----|----|----|----|----|----|---|-------|
| 10.5 | | 7 | | | | | | | | 7 |
| 11.5 | | 11 | | | | | | | | 11 |
| 12.5 | | 10 | | | | | | | | 10 |
| 13.5 | | 9 | 1 | | | | | | | 10 |
| 14.5 | | 11 | 5 | | | | | | | 16 |
| 15.5 | | 12 | 5 | | | | | | | 17 |
| 16.5 | | 8 | 8 | | | | | | | 16 |
| 17.5 | | 4 | 15 | 1 | | | | | | 20 |
| 18.5 | | 2 | 19 | 1 | | | | | | 22 |
| 19.5 | | | 13 | 5 | 1 | | | | | 19 |
| 20.5 | | | 16 | 3 | 1 | | | | | 20 |
| 21.5 | | | 13 | 2 | 4 | 3 | | | | 22 |
| 22.5 | | | 5 | 6 | 5 | 2 | | | | 18 |
| 23.5 | | | 4 | 4 | 8 | 5 | | | | 21 |
| 24.5 | | | 5 | 3 | 9 | 6 | 3 | | | 26 |
| 25.5 | | | 1 | 1 | 11 | 4 | 4 | | | 21 |
| 26.5 | | | | 4 | 7 | 4 | 4 | 1 | | 20 |
| 27.5 | | | | | 6 | 4 | 4 | 1 | | 15 |
| 28.5 | | | | | 8 | 5 | 2 | 3 | | 18 |
| 29.5 | | | | 2 | 5 | 3 | 3 | 2 | | 15 |
| 30.5 | | | | 1 | 2 | 2 | 5 | 3 | | 13 |
| 31.5 | | | | | | 2 | 1 | 1 | | 4 |
| 32.5 | | | | | | 3 | 1 | 6 | | 10 |
| 33.5 | | | | | | | 1 | 2 | | 3 |
| 34.5 | | | | | | | | 4 | | 4 |
| 35.5 | | | | | | | | 1 | | 1 |
| 36.5 | | | | | | | | 1 | | 1 |
| 37.5 | | | | | | | | | | 0 |
| 38.5 | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | 0 |
| TOTAL | 0 | 74 | 110 | 33 | 67 | 43 | 28 | 25 | 0 | 380 |

Table 14. 1990 age length key of Megrim (*L. boscii*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa

Total

Year: 1991

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | TOTAL |
|-------|----|-----|-----|----|----|----|----|----|----|---|-------|
| 10.5 | | 4 | 1 | | | | | | | | 5 |
| 11.5 | | 12 | 2 | | | | | | | | 14 |
| 12.5 | | 12 | 1 | | | | | | | | 13 |
| 13.5 | | 22 | 6 | | | | | | | | 28 |
| 14.5 | | 22 | 4 | | | | | | | | 26 |
| 15.5 | | 19 | 9 | 2 | | | | | | | 30 |
| 16.5 | | 13 | 13 | 1 | | | | | | | 27 |
| 17.5 | | 10 | 19 | 1 | | | | | | | 30 |
| 18.5 | | 5 | 23 | 1 | 1 | | | | | | 30 |
| 19.5 | | 3 | 21 | 4 | 2 | | | | | | 30 |
| 20.5 | | 3 | 16 | 8 | 3 | | | | | | 30 |
| 21.5 | | | 14 | 6 | 6 | 4 | | | | | 30 |
| 22.5 | | | 11 | 9 | 6 | 3 | 1 | | | | 30 |
| 23.5 | | | 8 | 10 | 6 | 4 | 2 | | | | 30 |
| 24.5 | | | 4 | 16 | 4 | 5 | | 1 | | | 30 |
| 25.5 | | | 1 | 12 | 5 | 9 | 3 | | | | 30 |
| 26.5 | | | | 9 | 5 | 9 | 5 | 2 | | | 30 |
| 27.5 | | | 1 | 5 | 6 | 13 | 5 | | | | 30 |
| 28.5 | | | | 2 | 4 | 14 | 6 | 2 | 1 | | 29 |
| 29.5 | | | | 2 | 4 | 14 | 3 | 1 | | | 24 |
| 30.5 | | | | | 2 | 11 | 6 | 4 | | | 23 |
| 31.5 | | | | | | 3 | 7 | 3 | 5 | | 18 |
| 32.5 | | | | | | 7 | 5 | 1 | 1 | | 14 |
| 33.5 | | | | | | | 2 | 1 | 2 | | 5 |
| 34.5 | | | | | | 1 | 1 | | 1 | 2 | 5 |
| 35.5 | | | | | | | 1 | 1 | | 1 | 3 |
| 36.5 | | | | | | | | | | | 0 |
| 37.5 | | | | | | | | | | | 0 |
| 38.5 | | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | | 0 |
| TOTAL | 54 | 128 | 154 | 88 | 54 | 97 | 47 | 16 | 10 | 3 | 651 |

Table 14 cont. 1991 age length key of Megrim (*L. boscii*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa

Total

Year: 1992

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|----|----|----|----|----|----|----|---|---|-------|
| 10.5 | | 10 | | | | | | | | 10 |
| 11.5 | | 10 | | | | | | | | 10 |
| 12.5 | | 10 | | | | | | | | 10 |
| 13.5 | | 10 | 1 | | | | | | | 11 |
| 14.5 | | 10 | | | | | | | | 10 |
| 15.5 | | 11 | | | | | | | | 11 |
| 16.5 | | 11 | 6 | | | | | | | 17 |
| 17.5 | | 7 | 13 | | | | | | | 20 |
| 18.5 | | 3 | 14 | 3 | | | | | | 20 |
| 19.5 | | 2 | 13 | 5 | | | | | | 20 |
| 20.5 | | | 13 | 7 | 4 | | | | | 24 |
| 21.5 | | | 8 | 15 | 7 | | | | | 30 |
| 22.5 | | | 7 | 11 | 12 | 1 | | | | 31 |
| 23.5 | | | 4 | 11 | 15 | 3 | 1 | | | 34 |
| 24.5 | | | 1 | 7 | 17 | 4 | | | | 29 |
| 25.5 | | | 1 | 4 | 10 | 7 | | | | 22 |
| 26.5 | | | | 5 | 9 | 4 | | | | 18 |
| 27.5 | | | | 3 | 3 | 3 | 2 | | | 11 |
| 28.5 | | | | 3 | 3 | 3 | 1 | | | 10 |
| 29.5 | | | | | 3 | 6 | 2 | | | 11 |
| 30.5 | | | | | 2 | 4 | 4 | | | 10 |
| 31.5 | | | | | | 5 | 5 | | | 10 |
| 32.5 | | | | | | | 4 | | | 4 |
| 33.5 | | | | | | 2 | 4 | 1 | | 7 |
| 34.5 | | | | | | | 2 | 2 | | 4 |
| 35.5 | | | | | | | | | 1 | 1 |
| 36.5 | | | | | | | | 1 | | 1 |
| 37.5 | | | | | | | 1 | | | 1 |
| 38.5 | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | 0 |
| TOTAL | 44 | 90 | 81 | 74 | 85 | 42 | 26 | 4 | 1 | 447 |

Table 14 cont. 1992 age length key of Megrim (*L. boscii*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa

Total

Year: 1993

| EDAI | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | TOTAL |
|-------|---|-----|-----|----|-----|----|----|----|---|---|----|-------|
| 10.5 | | 15 | | | | | | | | | | 15 |
| 11.5 | | 20 | | | | | | | | | | 20 |
| 12.5 | | 20 | 1 | | | | | | | | | 21 |
| 13.5 | | 20 | | | | | | | | | | 20 |
| 14.5 | | 19 | 2 | | | | | | | | | 21 |
| 15.5 | | 16 | 12 | | | | | | | | | 28 |
| 16.5 | | 12 | 18 | | | | | | | | | 30 |
| 17.5 | | 5 | 22 | 2 | | | | | | | | 29 |
| 18.5 | | 1 | 33 | 5 | 1 | | | | | | | 40 |
| 19.5 | | 1 | 30 | 4 | 5 | | | | | | | 40 |
| 20.5 | | | 27 | 8 | 5 | | | | | | | 40 |
| 21.5 | | | 22 | 10 | 8 | | | | | | | 40 |
| 22.5 | | | 18 | 11 | 11 | | | | | | | 40 |
| 23.5 | | | 8 | 15 | 17 | | | | | | | 40 |
| 24.5 | | | 3 | 10 | 17 | 7 | | | | | | 37 |
| 25.5 | | | 1 | 12 | 22 | 2 | 1 | | | | | 38 |
| 26.5 | | | | 6 | 21 | 5 | 4 | | | | | 36 |
| 27.5 | | | | 4 | 11 | 10 | 1 | 1 | | | | 27 |
| 28.5 | | | | 1 | 13 | 5 | 6 | 1 | | | | 26 |
| 29.5 | | | | | 10 | 8 | 4 | 1 | | | | 23 |
| 30.5 | | | | 1 | 3 | 7 | 7 | 2 | | | | 20 |
| 31.5 | | | | | 1 | 1 | 7 | 5 | 1 | | 1 | 16 |
| 32.5 | | | | | | 1 | 2 | 2 | 1 | | | 6 |
| 33.5 | | | | | | | 4 | 2 | 2 | | | 8 |
| 34.5 | | | | | | | 2 | 3 | | | | 5 |
| 35.5 | | | | | | | 1 | 1 | | | | 2 |
| 36.5 | | | | | | | | | | | | 0 |
| 37.5 | | | | | | | | | | | | 0 |
| 38.5 | | | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | | | 0 |
| TOTAL | 0 | 129 | 197 | 89 | 145 | 46 | 39 | 18 | 4 | 0 | 1 | 668 |

Table 14 cont. 1993 age length key of Megrim (*L. boscii*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa
Spanish Survey
Year: 1990

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|---|----|-----|----|----|----|----|----|---|-------|
| 5.5 | 1 | | | | | | | | | 1 |
| 6.5 | 1 | | | | | | | | | 1 |
| 7.5 | 1 | | | | | | | | | 1 |
| 8.5 | | 1 | | | | | | | | 1 |
| 9.5 | | 4 | | | | | | | | 4 |
| 10.5 | | 7 | | | | | | | | 7 |
| 11.5 | | 11 | | | | | | | | 11 |
| 12.5 | | 10 | | | | | | | | 10 |
| 13.5 | | 9 | 1 | | | | | | | 10 |
| 14.5 | | 11 | 5 | | | | | | | 16 |
| 15.5 | | 12 | 5 | | | | | | | 17 |
| 16.5 | | 8 | 8 | | | | | | | 16 |
| 17.5 | | 4 | 15 | 1 | | | | | | 20 |
| 18.5 | | 2 | 19 | 1 | | | | | | 22 |
| 19.5 | | | 13 | 5 | 1 | | | | | 19 |
| 20.5 | | | 16 | 3 | 1 | | | | | 20 |
| 21.5 | | | 13 | 2 | 4 | 3 | | | | 22 |
| 22.5 | | | 5 | 6 | 5 | 2 | | | | 18 |
| 23.5 | | | 4 | 4 | 8 | 5 | | | | 21 |
| 24.5 | | | 5 | 3 | 9 | 6 | 3 | | | 26 |
| 25.5 | | | 1 | 1 | 11 | 4 | 4 | | | 21 |
| 26.5 | | | | 4 | 7 | 4 | 4 | 1 | | 20 |
| 27.5 | | | | | 6 | 4 | 4 | 1 | | 15 |
| 28.5 | | | | | 8 | 5 | 2 | 3 | | 18 |
| 29.5 | | | | 2 | 5 | 3 | 3 | 2 | | 15 |
| 30.5 | | | | 1 | 2 | 2 | 5 | 3 | | 13 |
| 31.5 | | | | | | 2 | 1 | 1 | | 4 |
| 32.5 | | | | | | 3 | 1 | 6 | | 10 |
| 33.5 | | | | | | | 1 | 2 | | 3 |
| 34.5 | | | | | | | | 4 | | 4 |
| 35.5 | | | | | | | | 1 | | 1 |
| 36.5 | | | | | | | | 1 | | 1 |
| 37.5 | | | | | | | | | | 0 |
| 38.5 | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | 0 |
| TOTAL | 3 | 79 | 110 | 33 | 67 | 43 | 28 | 25 | 0 | 388 |

Table 14 cont. 1990 age length key of Megrim (*L. boscii*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa
Spanish Survey
Year: 1991

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | TOTAL |
|-------|----|-----|-----|-----|----|----|----|---|---|---|-------|
| 5.5 | 12 | | | | | | | | | | 12 |
| 6.5 | 16 | | | | | | | | | | 16 |
| 7.5 | 20 | | | | | | | | | | 20 |
| 8.5 | 14 | | | | | | | | | | 14 |
| 9.5 | 2 | 3 | | | | | | | | | 5 |
| 10.5 | | 4 | 1 | | | | | | | | 5 |
| 11.5 | | 19 | 2 | | | | | | | | 21 |
| 12.5 | | 27 | | | | | | | | | 27 |
| 13.5 | | 50 | 3 | | | | | | | | 53 |
| 14.5 | | 49 | 1 | | | | | | | | 50 |
| 15.5 | | 48 | 6 | | | | | | | | 54 |
| 16.5 | | 41 | 13 | 1 | | | | | | | 55 |
| 17.5 | | 22 | 34 | | | | | | | | 56 |
| 18.5 | | 5 | 41 | 3 | 2 | | | | | | 51 |
| 19.5 | | 2 | 48 | 8 | 1 | | | | | | 59 |
| 20.5 | | | 40 | 17 | 3 | | | | | | 60 |
| 21.5 | | | 38 | 11 | 3 | 1 | | | | | 53 |
| 22.5 | | | 25 | 18 | 6 | 1 | | | | | 50 |
| 23.5 | | | 21 | 14 | 11 | 3 | | | | | 49 |
| 24.5 | | | 10 | 23 | 9 | 4 | 1 | | | | 47 |
| 25.5 | | | 3 | 21 | 16 | 6 | | | | | 46 |
| 26.5 | | | | 18 | 8 | 5 | 2 | | | | 33 |
| 27.5 | | | 1 | 9 | 7 | 15 | 2 | | | | 34 |
| 28.5 | | | | 3 | 5 | 10 | 1 | | | | 19 |
| 29.5 | | | | 3 | 3 | 10 | 1 | | | | 17 |
| 30.5 | | | | | 2 | 7 | 2 | 2 | | | 13 |
| 31.5 | | | | | | 2 | 2 | 1 | | | 5 |
| 32.5 | | | | | | 6 | 2 | | | | 8 |
| 33.5 | | | | | | | 1 | 1 | | | 2 |
| 34.5 | | | | | | 1 | 1 | | | 2 | 4 |
| 35.5 | | | | | | | 1 | 1 | | | 2 |
| 36.5 | | | | | | | | | | | 0 |
| 37.5 | | | | | | | | | | | 0 |
| 38.5 | | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | | 0 |
| TOTAL | 64 | 270 | 287 | 149 | 76 | 71 | 16 | 5 | 0 | 2 | 940 |

Table 14 cont. 1991 age length key of Megrim (*L. boscii*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa
Spanish Survey
Year: 1992

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | TOTAL |
|-------|----|-----|-----|-----|----|----|----|---|---|-------|
| 5.5 | 13 | | | | | | | | | 13 |
| 6.5 | 17 | | | | | | | | | 17 |
| 7.5 | 20 | 2 | | | | | | | | 22 |
| 8.5 | 20 | 4 | | | | | | | | 24 |
| 9.5 | 12 | 6 | | | | | | | | 18 |
| 10.5 | | 12 | | | | | | | | 12 |
| 11.5 | | 23 | | | | | | | | 23 |
| 12.5 | | 32 | | | | | | | | 32 |
| 13.5 | | 40 | | | | | | | | 40 |
| 14.5 | | 40 | | | | | | | | 40 |
| 15.5 | | 36 | | | | | | | | 36 |
| 16.5 | | 36 | 4 | | | | | | | 40 |
| 17.5 | | 18 | 8 | | | | | | | 26 |
| 18.5 | | 12 | 22 | 4 | | | | | | 38 |
| 19.5 | | 7 | 25 | 7 | 1 | | | | | 40 |
| 20.5 | | | 21 | 8 | 3 | | | | | 32 |
| 21.5 | | | 23 | 13 | 2 | | | | | 38 |
| 22.5 | | | 15 | 19 | 6 | | | | | 40 |
| 23.5 | | | 7 | 22 | 9 | 2 | | | | 40 |
| 24.5 | | | 3 | 21 | 15 | 1 | | | | 40 |
| 25.5 | | | 3 | 18 | 12 | 7 | | | | 40 |
| 26.5 | | | | 18 | 11 | 6 | | | | 35 |
| 27.5 | | | | 10 | 8 | 6 | 5 | | | 29 |
| 28.5 | | | | 8 | 8 | 8 | 1 | | | 25 |
| 29.5 | | | | | 6 | 10 | 3 | | | 19 |
| 30.5 | | | | | 5 | 9 | 7 | | | 21 |
| 31.5 | | | | | | 6 | 5 | | | 11 |
| 32.5 | | | | | | | 4 | | | 4 |
| 33.5 | | | | | | 2 | 4 | 1 | | 7 |
| 34.5 | | | | | | | 2 | 2 | | 4 |
| 35.5 | | | | | | | | | 1 | 1 |
| 36.5 | | | | | | | | 1 | | 1 |
| 37.5 | | | | | | | 1 | | | 1 |
| 38.5 | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | 0 |
| TOTAL | 82 | 268 | 131 | 148 | 86 | 57 | 32 | 4 | 1 | 809 |

Table 14 cont. 1992 age length key of Megrim (*L. boscii*)
Division VIIIc, IXa.

L. boscii Division VIIIc, IXa
 Spanish Survey
 Year: 1993

| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | TOTAL |
|-------|----|-----|-----|-----|-----|----|----|----|---|---|----|-------|
| 5.5 | 6 | | | | | | | | | | | 6 |
| 6.5 | 12 | | | | | | | | | | | 12 |
| 7.5 | 4 | | | | | | | | | | | 4 |
| 8.5 | 3 | 1 | | | | | | | | | | 4 |
| 9.5 | | 5 | | | | | | | | | | 5 |
| 10.5 | | 15 | | | | | | | | | | 15 |
| 11.5 | | 26 | | | | | | | | | | 26 |
| 12.5 | | 30 | | | | | | | | | | 30 |
| 13.5 | | 30 | | | | | | | | | | 30 |
| 14.5 | | 28 | 2 | | | | | | | | | 30 |
| 15.5 | | 48 | 12 | | | | | | | | | 60 |
| 16.5 | | 37 | 23 | | | | | | | | | 60 |
| 17.5 | | 15 | 45 | | | | | | | | | 60 |
| 18.5 | | 4 | 56 | | | | | | | | | 60 |
| 19.5 | | 2 | 54 | 2 | | | | | | | | 58 |
| 20.5 | | | 54 | 5 | 1 | | | | | | | 60 |
| 21.5 | | | 44 | 13 | 1 | | | | | | | 58 |
| 22.5 | | | 43 | 13 | 3 | | | | | | | 59 |
| 23.5 | | | 21 | 19 | 11 | | | | | | | 51 |
| 24.5 | | | 6 | 19 | 19 | 3 | | | | | | 47 |
| 25.5 | | | 2 | 17 | 15 | 1 | | | | | | 35 |
| 26.5 | | | 1 | 11 | 19 | 4 | 1 | | | | | 36 |
| 27.5 | | | | 8 | 17 | 16 | 2 | | | | | 43 |
| 28.5 | | | | 1 | 16 | 9 | 7 | 1 | | | | 34 |
| 29.5 | | | | | 12 | 8 | 6 | 2 | | | | 28 |
| 30.5 | | | | 1 | 3 | 7 | 7 | 2 | | | | 20 |
| 31.5 | | | | | 1 | | 6 | 4 | 1 | | 1 | 13 |
| 32.5 | | | | | | 1 | 2 | 1 | 1 | | | 5 |
| 33.5 | | | | | | | 4 | 2 | 2 | | | 8 |
| 34.5 | | | | | | | 2 | 3 | | | | 5 |
| 35.5 | | | | | | | 1 | 1 | | | | 2 |
| 36.5 | | | | | | | | | | | | 0 |
| 37.5 | | | | | | | | | | | | 0 |
| 38.5 | | | | | | | | | | | | 0 |
| 39.5 | | | | | | | | | | | | 0 |
| 40.5 | | | | | | | | | | | | 0 |
| TOTAL | 25 | 241 | 363 | 109 | 118 | 49 | 38 | 16 | 4 | 0 | 1 | 964 |

Table 14 cont. 1993 age length key of Megrim (*L. boscii*)
 Division VIIIc, IXa.

(a)

| 1991 TRIM. Qtr. | MACHOS (males) | | | | 1992 TRIM. Qtr. | MACHOS (males) | | | |
|-----------------------|----------------|-------|------|----|-----------------------|----------------|-------|------|----|
| | (age) EDAD | L | SD | n | | (age) EDAD | L | SD | n |
| 2 | 3 | 21.81 | 1.11 | 32 | 1 | 3 | 20.50 | 1.31 | 62 |
| 2 | 4 | 24.83 | 1.84 | 22 | 1 | 4 | 24.52 | 1.69 | 27 |
| 2 | 5 | 27.34 | 1.55 | 10 | 1 | 5 | 26.70 | 1.57 | 18 |

| 1991 TRIM. Qtr. | HEMBRAS (females) | | | | 1992 TRIM. Qtr. | HEMBRAS (females) | | | |
|-----------------------|-------------------|-------|------|-----|-----------------------|-------------------|-------|------|----|
| | (age) EDAD | L | SD | n | | (age) EDAD | L | SD | n |
| 1 | 4 | 26.48 | 2.16 | 19 | 1 | 4 | 26.21 | 2.31 | 73 |
| 1 | 6 | 34.41 | 3.71 | 37 | 1 | 5 | 29.55 | 4.31 | 16 |
| 2 | 3 | 23.00 | 1.51 | 38 | 2 | 3 | 23.11 | 1.07 | 60 |
| 2 | 4 | 27.52 | 0.99 | 5 | 2 | 4 | 26.34 | 1.53 | 18 |
| 2 | 5 | 31.37 | 3.47 | 27 | 2 | 7 | 39.44 | 2.86 | 17 |
| 2 | 6 | 35.55 | 4.36 | 44 | 3 | 4 | 27.99 | 1.97 | 42 |
| 2 | 8 | 42.01 | 4.06 | 11 | 3 | 9 | 48.08 | 1.83 | 11 |
| 3 | 3 | 24.25 | 1.62 | 109 | 4 | 4 | 29.17 | 2.99 | 16 |
| 3 | 4 | 27.61 | 1.65 | 49 | 4 | 5 | 32.47 | 2.24 | 3 |
| 3 | 5 | 31.12 | 2.12 | 47 | | | | | |
| 3 | 6 | 34.92 | 3.48 | 52 | | | | | |
| 4 | 3 | 24.31 | 1.49 | 48 | | | | | |
| 4 | 4 | 28.13 | 3.32 | 21 | | | | | |

(b)

| 1991 TRIM. Qtr. | MACHOS (males) | | | | 1992 TRIM. Qtr. | MACHOS (males) | | | |
|-----------------------|----------------|-------|------|----|-----------------------|----------------|-------|------|----|
| | (age) EDAD | L | SD | n | | (age) EDAD | L | SD | n |
| 1 | 3 | 22.68 | 2.04 | 9 | 2 | 3 | 23.06 | 1.97 | 36 |
| 1 | 4 | 26.03 | 1.83 | 6 | 2 | 4 | 27.66 | 2.55 | 52 |
| 1 | 5 | 28.09 | 1.99 | 9 | 2 | 5 | 31.25 | 2.05 | 19 |
| 2 | 4 | 26.69 | 2.61 | 7 | 3 | 3 | 23.87 | 1.59 | 17 |
| 2 | 5 | 28.77 | 3.31 | 12 | 3 | 4 | 28.04 | 2.11 | 31 |
| 3 | 4 | 27.28 | 2.79 | 9 | 3 | 5 | 31.89 | 2.19 | 25 |
| 3 | 5 | 29.33 | 2.18 | 2 | | | | | |

| 1991 TRIM. Qtr. | HEMBRAS (females) | | | | 1992 TRIM. Qtr. | HEMBRAS (females) | | | |
|-----------------------|-------------------|-------|------|----|-----------------------|-------------------|-------|------|----|
| | (age) EDAD | L | SD | n | | (age) EDAD | L | SD | n |
| 1 | 5 | 33.83 | 2.80 | 16 | 2 | 4 | 28.57 | 1.83 | 11 |
| 2 | 3 | 25.78 | 1.91 | 8 | 2 | 5 | 34.59 | 1.61 | 25 |
| 2 | 5 | 33.72 | 3.11 | 18 | 2 | 6 | 38.64 | 2.78 | 44 |
| 3 | 6 | 36.19 | 3.08 | 12 | 2 | 7 | 41.59 | 2.79 | 13 |
| | | | | | 3 | 6 | 38.96 | 2.61 | 1 |
| | | | | | 4 | 5 | 36.33 | 2.61 | 7 |
| | | | | | 4 | 6 | 40.87 | 1.03 | |

(d)

| EDAD (age) | MACHOS (males) | | | | | | HEMBRAS (females) | | | | | |
|---------------|----------------|------|---|-------|------|----|-------------------|------|----|-------|------|----|
| | 1991 | | | 1992 | | | 1991 | | | 1992 | | |
| | L | SD | n | L | SD | n | L | SD | n | L | SD | n |
| 0 | 8 | 0.96 | 4 | | | | 8 | 0.96 | 4 | | | |
| 1 | 17.25 | 1.39 | 6 | 16.72 | 1.21 | 36 | 17.23 | 1.14 | 6 | 18.62 | 1.80 | 39 |
| 2 | 21.09 | 1.49 | 8 | 20 | 0.50 | 2 | 27.48 | 3.04 | 21 | 26.3 | 1.89 | 10 |
| 3 | 24.49 | 0.71 | 3 | 23.7 | 1.60 | 4 | 31.52 | 1.78 | 6 | 32.83 | 0.47 | 6 |
| 4 | 27.25 | 1.09 | 3 | | | | | | | | | |

(c)

| EDAD (age) | MACHOS (males) | | | | | | HEMBRAS (females) | | | | | |
|---------------|----------------|------|----|-------|------|----|-------------------|------|----|-------|------|----|
| | 1991 | | | 1992 | | | 1991 | | | 1992 | | |
| | L | SD | n | L | SD | n | L | SD | n | L | SD | n |
| 0 | 9.49 | 1.04 | 23 | | | | 9.5 | 1.06 | 23 | | | |
| 1 | 19.11 | 1.79 | 24 | 16.25 | 1.59 | 68 | 19.54 | 1.35 | 25 | 16.68 | 1.93 | 91 |
| 2 | 21.66 | 1.66 | 22 | 21.79 | 2.04 | 25 | 24.59 | 1.75 | 40 | 24.37 | 3.79 | 17 |
| 3 | 22.14 | 1.91 | 15 | 23.74 | 1.47 | 20 | 28.03 | 1.79 | 20 | 26.74 | 2.69 | 48 |
| 4 | 25.51 | 1.41 | 25 | 25.73 | 1.81 | 50 | 30.43 | 3.26 | 38 | 30.62 | 2.84 | 73 |
| 5 | 28.36 | 0.81 | 13 | 28.23 | 2.23 | 18 | 33.94 | 2.49 | 24 | 33.36 | 3.74 | 73 |
| 6 | | | | | | | 38.13 | 2.54 | 11 | 38.49 | 3.95 | 21 |
| 7 | | | | | | | | | | 43.38 | 2.45 | 12 |
| 8 | | | | | | | | | | 47.77 | 0.75 | 3 |

Table 15. Talla media L(cm) por edad, desviación estándar SD(cm), y número (n) de *L. whiffiagonis* por Divisiones del ICES: (a) VII, (b) VIIIab, (c) VIIIc2 (sept.-oct.) y (d) VIIIc1 (sept.-oct.).

Table 15. Mean length L (cm) at age SD, and number (n) of *L. whiffiagonis*, Div. (a) VII, (b) VIIIab, (c) VIIIc2.

(a)

| 1992 TRIM. Qtr. | MACHOS (males) | | | | 1992 TRIM. Qtr. | HEMBRAS (females) | | | |
|-----------------------|----------------|-------|------|----|-----------------------|-------------------|-------|------|----|
| | (age) EDAD | L | SD | n | | (age) EDAD | L | SD | n |
| 1 | 4 | 21.78 | 0.99 | 3 | 1 | 4 | 23.37 | 1.09 | 4 |
| 1 | 5 | 24.48 | 0.92 | 3 | 2 | 4 | 24.25 | 1.42 | 12 |
| 2 | 3 | 18.87 | 0.79 | 6 | 2 | 5 | 27.08 | 1.23 | 10 |
| 2 | 5 | 24.42 | 1.35 | 7 | 2 | 6 | 30.05 | 2.79 | 5 |
| 3 | 3 | 19.91 | 1.24 | 16 | 3 | 3 | 21.37 | 0.80 | 3 |
| 3 | 4 | 23.07 | 1.48 | 17 | 3 | 4 | 25.13 | 2.39 | 14 |
| 3 | 5 | 25.46 | 1.93 | 6 | 3 | 5 | 27.14 | 1.94 | 36 |
| 4 | 3 | 20.29 | 0.69 | 4 | 3 | 6 | 30.52 | 1.46 | 15 |
| 4 | 4 | 23.81 | 1.05 | 4 | 3 | 7 | 33.08 | 1.70 | 9 |
| | | | | | 4 | 3 | 23.14 | 1.36 | 15 |
| | | | | | 4 | 4 | 25.65 | 1.93 | 22 |
| | | | | | 4 | 5 | 29.17 | 1.49 | 15 |
| | | | | | 4 | 6 | 32.29 | 0.57 | 3 |

(b)

| EDAD (age) | MACHOS (males) | | | | | | HEMBRAS (females) | | | | | |
|---------------|----------------|------|----|-------|------|----|-------------------|------|----|-------|------|----|
| | 1991 | | | 1992 | | | 1991 | | | 1992 | | |
| | L | SD | n | L | SD | n | L | SD | n | L | SD | n |
| 0 | 7.25 | 0.77 | 21 | | | | 7.25 | 0.77 | 21 | | | |
| 1 | 14.44 | 1.53 | 63 | 12.81 | 1.76 | 38 | 14.91 | 1.70 | 66 | 12.79 | 1.76 | 38 |
| 2 | 18.55 | 1.27 | 19 | 18.67 | 1.54 | 24 | 19.55 | 2.16 | 39 | 19.89 | 1.78 | 30 |
| 3 | 20.78 | 1.59 | 43 | 21.32 | 1.68 | 12 | 23.66 | 1.73 | 44 | 23.04 | 1.84 | 17 |
| 4 | 23.2 | 2.41 | 49 | 22.67 | 1.85 | 32 | 25.12 | 3.16 | 14 | 25.24 | 2.19 | 34 |
| 5 | 24.42 | 2.29 | 16 | 25.82 | 1.98 | 10 | 28.18 | 1.99 | 45 | 27.44 | 2.48 | 46 |
| 6 | 27.49 | 0.79 | 2 | 27.5 | 0.00 | 4 | 29.11 | 2.56 | 6 | 30.41 | 1.76 | 23 |

(c)

| EDAD (age) | MACHOS (males) | | | | | | HEMBRAS (females) | | | | | |
|---------------|----------------|------|----|-------|------|----|-------------------|------|----|-------|------|----|
| | 1991 | | | 1992 | | | 1991 | | | 1992 | | |
| | L | SD | n | L | SD | n | L | SD | n | L | SD | n |
| 0 | 7.33 | 0.60 | 5 | 7.5 | 0.95 | 21 | 7.33 | 0.60 | 5 | 7.5 | 0.95 | 21 |
| 1 | 15.29 | 1.42 | 38 | 14.89 | 1.47 | 66 | 15.97 | 1.40 | 42 | 15.96 | 1.46 | 73 |
| 2 | 20 | 1.59 | 50 | 20.43 | 1.19 | 38 | 22.04 | 1.77 | 73 | 23.1 | 1.46 | 68 |
| 3 | 22.59 | 1.96 | 16 | 22.35 | 1.35 | 46 | 25.51 | 1.67 | 34 | 26.18 | 1.58 | 75 |
| 4 | | | | 24.16 | 0.89 | 13 | 28.64 | 0.97 | 7 | 27.92 | 1.25 | 28 |
| 5 | | | | | | | 29.81 | 3.02 | 11 | 30.57 | 1.15 | 8 |
| 6 | | | | | | | 32.66 | 1.90 | 4 | 32.62 | 1.65 | 7 |

(d)

| EDAD (age) | MACHOS (males) | | | | | | HEMBRAS (females) | | | | | |
|---------------|----------------|------|----|-------|------|----|-------------------|------|----|-------|------|----|
| | 1991 | | | 1992 | | | 1991 | | | 1992 | | |
| | L | SD | n | L | SD | n | L | SD | n | L | SD | n |
| 0 | 6.87 | 0.48 | 6 | 8.15 | 0.93 | 23 | 6.95 | 0.49 | 6 | 8.15 | 0.93 | 23 |
| 1 | 14.38 | 1.29 | 33 | 14.12 | 1.16 | 38 | 14.74 | 1.31 | 39 | 14.89 | 1.06 | 37 |
| 2 | 17.78 | 1.35 | 57 | 19.4 | 0.79 | 13 | 20.24 | 1.79 | 89 | 21.93 | 1.29 | 26 |
| 3 | 20.89 | 2.59 | 16 | 21.24 | 1.21 | 25 | 23.77 | 2.70 | 30 | 25.19 | 1.38 | 72 |
| 4 | 25.49 | 0.57 | 6 | | | | 23.94 | 2.71 | 6 | | | |
| 5 | | | | | | | 28.29 | 1.34 | 4 | | | |
| 6 | | | | | | | 32.5 | 1.42 | 3 | | | |

Tabla 16 Talla media L(cm) por edad, desviación estándar SD(cm), y número (n) de *L. boscai* por Divisiones del ICES: (a) VIIIab, (b) VIIIc2 (sept.-oct.), (c) VIIIc1 (sept.-oct.) y (d) IXa2 (sept.-oct.).

Table 16. Mean length L(cm) at age, SD, and number (n) of *L. boscai*, Div. (a), VIIIab, (b) VIIIc2, (c) VIIIc1, and d IXa2.